

# Modern LITHOGRAPHY

JANUARY - 1950 - VOLUME 18 - NUMBER 1

*ml*



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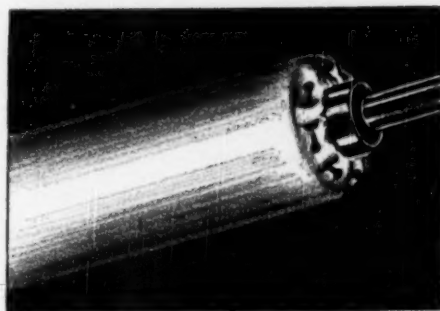
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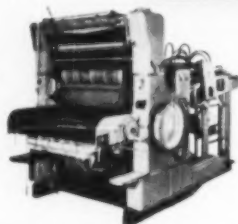
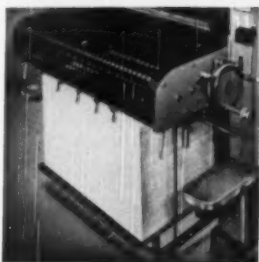
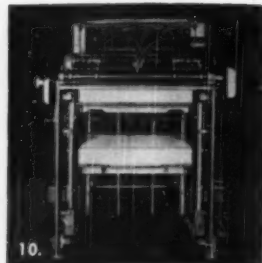
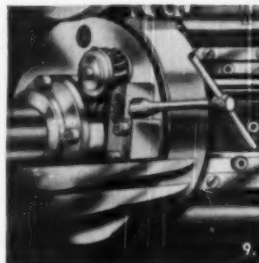
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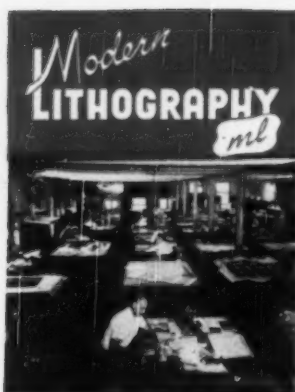


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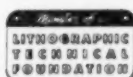
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### THE COVER

The stripping and dot etching departments of Zabel Bros. Co., Philadelphia, show part of the company's extensive modernization program. In the foreground, Walter Bruckner, in charge of label production. See Page 47.



ROBERT P. LONG  
Editor

THOMAS MORGAN  
Business Manager

Address all correspondence to  
254 W. 31st St., New York 1, N. Y.

January, 1950

VOLUME 18, NO. 1

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## MODERN LITHOGRAPHY

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WAYNE E. DOBLAND, President; ISA P. MACNAIR, Secretary-Treasurer. Published monthly on the 15th by Industry Publications, Inc., 123 Market Place, Baltimore 2, Md. Advertising and Editorial Office, 254 W. 31st St., New York 1, N. Y. Advertising rates made known on application. Closing date for copy—25th of the month previous to date of issue. Entered as second class matter at the Post Office at Baltimore, Md., under the Act of March 3, 1879.

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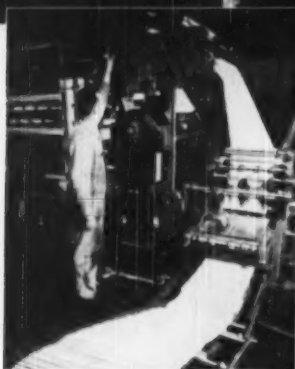
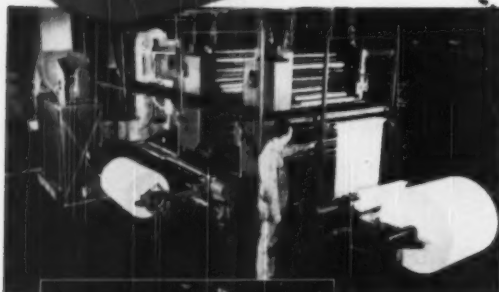
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A Edição Portuguesa do Reader's Digest, também...

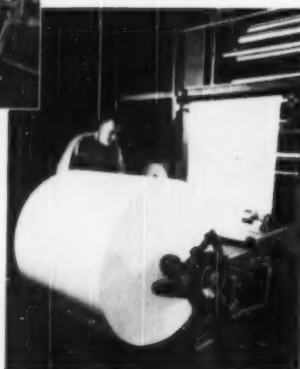
... Another Foreign Edition  
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Web-Fed OFFSET PRESS



Adjusting Compensator  
to line up sheet heads.

Adjusting variable drive  
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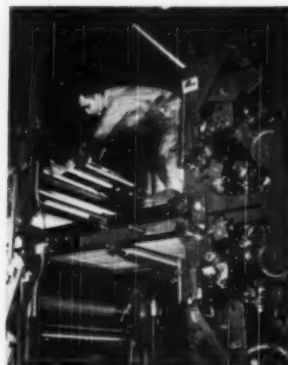


Stop and jog buttons  
are conveniently lo-  
cated for feeding the  
paper to the press.

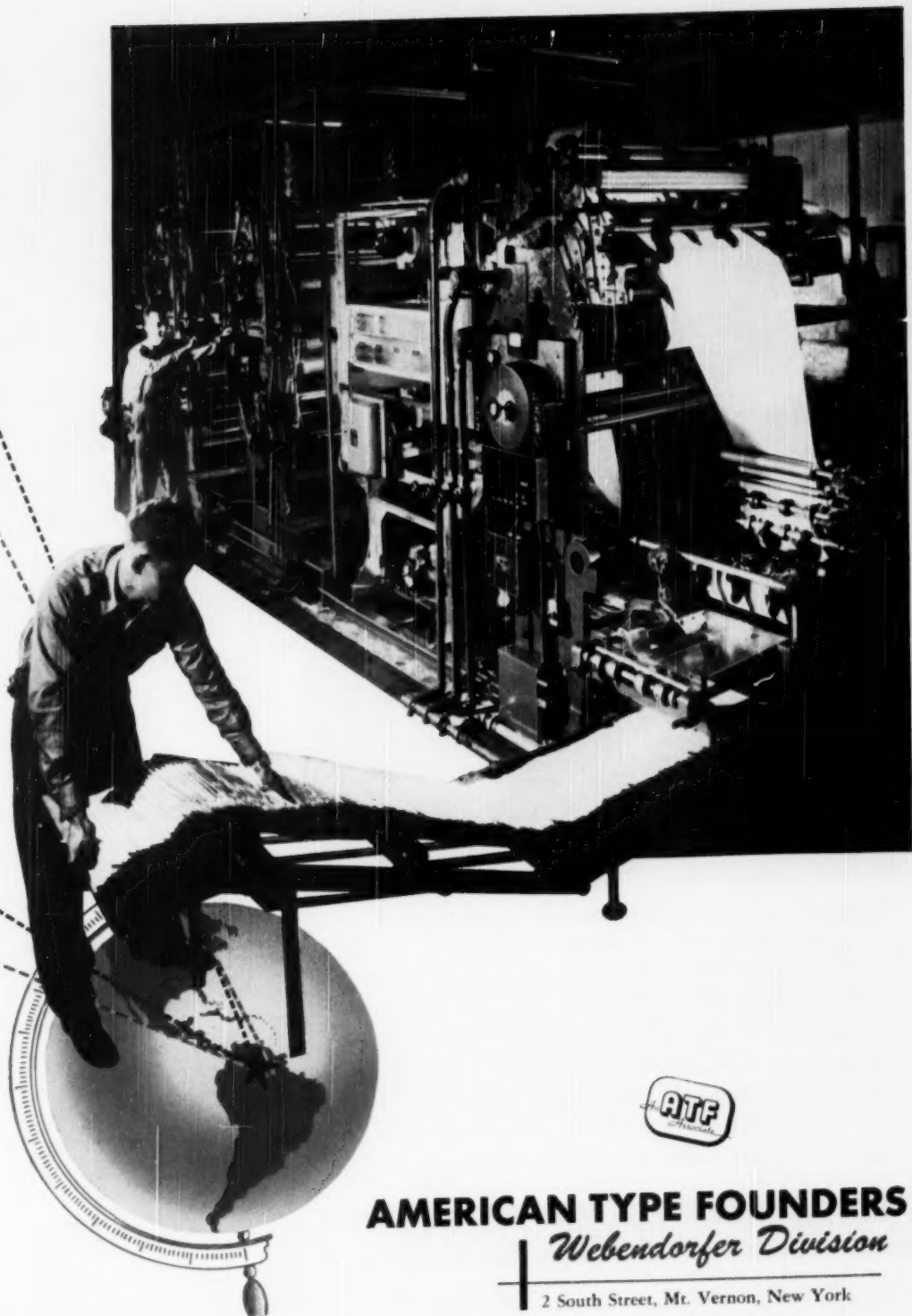
This makes the *third* ATF-Webendorfer press built especially for the production of foreign editions of Reader's Digest. It is a two-unit press with folder and sheet delivery, which will print from two rolls. The 35-inch web speed exceeds 400 ft. per minute. The press delivers 22 $\frac{3}{4}$ " cut sheets folded to Reader's Digest size; makes a former fold and a double parallel fold and delivers two up of the Digest size 16-page signature, or 32-page total, two colors to each side. When printing from two rolls, it delivers two 32-page signatures, one color each side. Capacity is 12,000 to 14,000 double parallel fold signatures per hour.

The press handles standard offset stocks up to 60 pound, as well as machine coated papers. It uses special quick-drying inks and is equipped with special heat-set ink rollers and a Unitron Electric Dryer. After drying, the web runs through low-temperature cooling rollers. A Reliance variable speed converting unit, converting AC current to DC, assures smooth operation.

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MODERN LITHOGRAPHY, January, 1950



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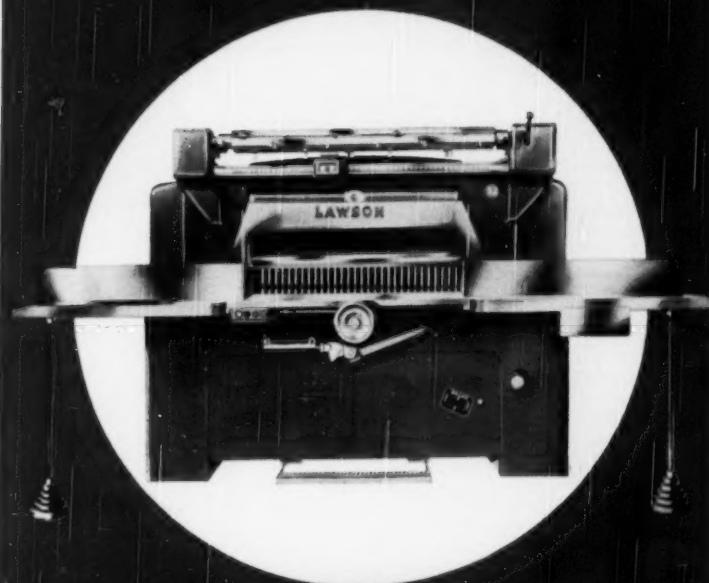


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## HERE'S WHAT THEY'RE SAYING

**Management Cost Control Manual:**—Thanks for the copy that you sent us. It's quite apparent that much careful thought and effort have been put into this work. It quite completely covers the broad subject of costs and we feel that it supplies in detail the necessary information to enable any organization, large or small, to apply it to their business.

The index enables one to easily and quickly find the subject to be covered and with the wide variety of forms at the back of the book, you have the tools for the practical application. In a word, we think you have done a magnificent job and every owner of a lithograph plant would find this book worth many, many times what it costs.

We also would like to express our appreciation of the job you are doing on

labor relations. The Budget Hourly Cost Studies that you have made from time to time we have found very helpful and best of all, the membership dues are the lowest in the graphic arts industry so far as we know.

We find it to be a very complete and carefully planned manual on Cost Control. Despite the fact that we cannot digest it all immediately, we are sure that it is something we can refer to repeatedly in the future, and still derive benefit from. This is especially true of a small firm like ours who do not feel some parts of the manual are applicable. On the other hand we seem to be growing rapidly, and as new problems in Cost Control arise, we are sure that we can go to the manual for the necessary answers.

It is surprising to us that a book of this sort can be published, for the benefit of the NAPL members, and distributed to us with no increase in our already reasonable dues. Coupled with the many already existing services, membership in the NAPL

is certainly very desirable, and we do not feel that we could afford to be otherwise.

We believe that the "Management Cost Control Manual" alone is worth all the dues we have ever paid. Will you please send us an additional copy of the "Management Cost Control Manual" (at the regular price to members), which we wish to present to our certified public accountant.

I have spent a great deal of time going over Mr. Somers' new work—"Management Cost Control Manual," and I want to take this opportunity to say that it is by far the most complete analysis of costs and its application to the lithographic industry that I have ever seen.

I think that the contents covering a very difficult and complex subject are adequately set forth in regard to clarity and ease of understanding. I certainly feel that the need for a study of this type is great in the industry and I can only say that I think it is a shame that lithographers have not pursued this type of thinking further.

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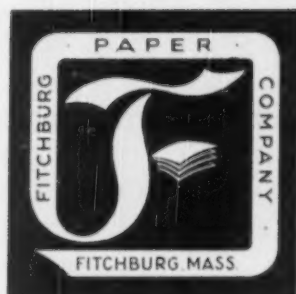
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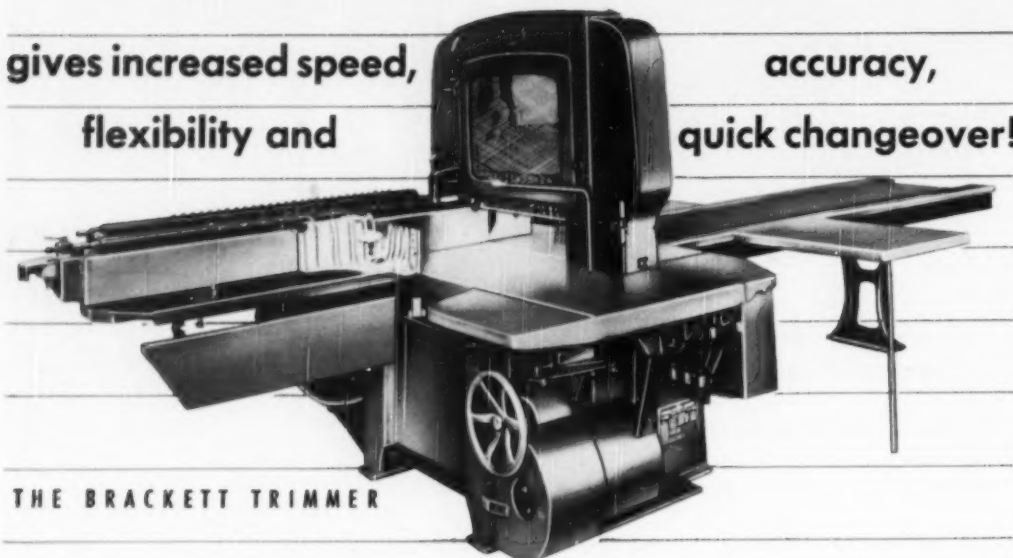
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MODERN LITHOGRAPHY, January, 1950

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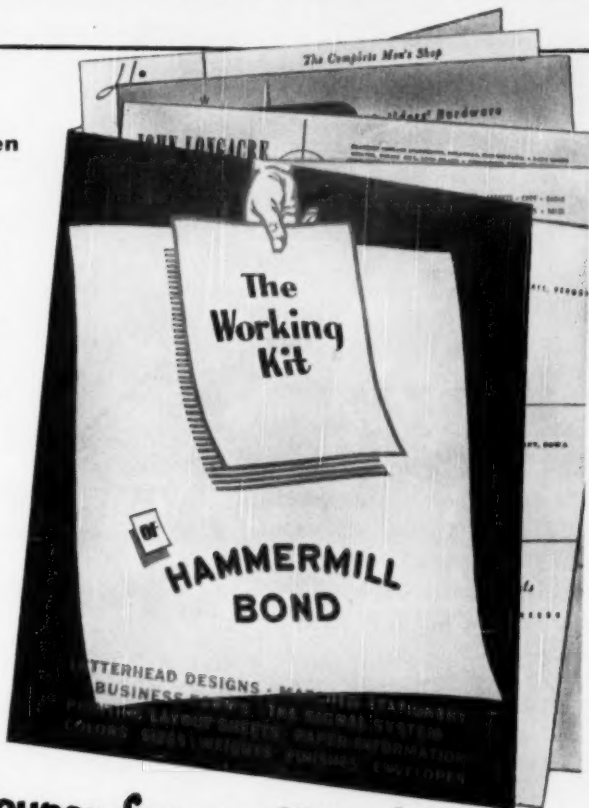
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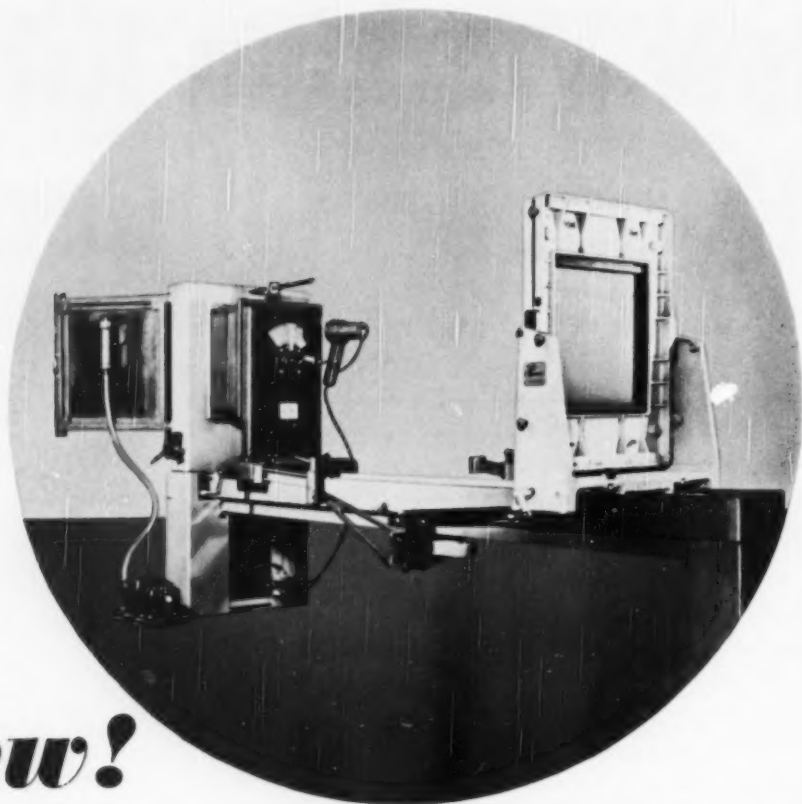
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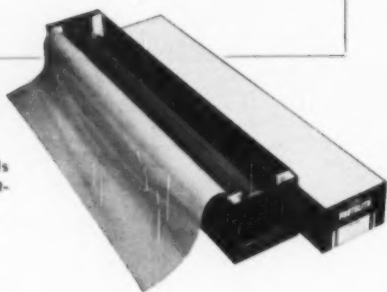
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**BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY**

# EDITORIALS

**L**EARNED predictions on the 1950 outlook at the turn of the year were as numerous as calendars. Economists and professional crystal-gazers were unanimous in foreseeing a good year for business, with production at a slightly lower level than in 1949.

Secretary of Commerce Charles Sawyer, completing a personal fact-finding tour of business across the nation, reported that business "probably will continue at its present high levels throughout at least the early part of 1950." He echoed the pleas of businessmen on several points. "Many small businessmen, although still operating at a fairly high level, are suffering a substantially reduced profit margin. These reduced earnings make continued expansion of plant and equipment somewhat less attractive . . ."

There was a general plea for tax relief as a means of stabilizing costs and prices, and as a stimulus to business. The wartime excise taxes, (which place an unwarranted tax load on lithographic film and photographic equipment), came under heavy attack from all quarters. Secretary Sawyer also reported repeated recommendations for a liberalization of depreciation allowances and a liberalization of the corporate income tax to permit small businesses to retain a larger share of earnings as working capital. The tax burden also is throttling new risk capital which might otherwise be put to work creating new business and new jobs, he reminded.

Next to taxes, uncertainty over labor costs is the major deterrent to plant and equipment expansion and replacement, his report shows. Smaller firms anticipate difficulty in adjusting to wage and pension patterns worked out between unions and larger companies on an area-wide basis.

Secretary Sawyer's accurate appraisal of what business needs to keep the economy rolling at a good clip, unfortunately is far over-shadowed by what President Truman is demanding to keep the gravy train rolling for the Free Deal. Too many times we have heard fine recommendations for tax reform, which built up the hopes of business, only to discover that the trend of taxes continues upward in order to finance gigantic federal government spending.

The problems of lithographic management in 1950 obviously will continue very much like

those of 1949. Excise taxes seem to have a good chance of being repealed, although they might be replaced by some other less obvious tax.

Price competition in lithography will grow sharper, as the full impact of greatly expanded production facilities hits more stabilized markets. Plant expansion, still going strong, probably will slow down some; much of the post-war modernization has been accomplished already, and lithographers realize the dangers in over-expanding. Merely increasing the volume of production may be dangerous in the years ahead, although modernizing and re-equipping to step up efficiency and to reduce costs are always sound, as is increasing facilities for production to meet a definite demand.

Observers in the graphic arts are predicting a good year. "Perhaps the best evidence," says E. G. Williams, president of American Type Founders Sales Corp., "can be found in the plans of advertisers. Throughout the advertising field, budgets for 1950 are reported to be as large as they were in 1949, and in some cases there will be increases . . . The effect of this will be to maintain mercantile activities, and consequently printing demands, on the present favorable level. This in itself argues an increase in the business level for the second half of the year. Then advertising will have had time to exert its usual stimulation on business conditions."

Although the big rush and excitement in the graphic arts may die down somewhat, the general level of activity of the past four years is not going to decline, in the opinion of Harry A. Porter, vice president of Harris-Seybold Co. "The business will be there," he continues, but I think that in 1950 you will see more attention paid to producing it profitably . . . many plants will be housecleaning, looking for ways of replacing obsolete machines and methods."

To sum up, a few things are reasonably sure: taxes will remain high in spite of possible relief in spots; labor demands for more pay and more welfare plans will continue; competition for the high volume of business will be keen; obsolete rule-of-thumb production methods will become more of an impediment; salesmen will continue to turn in large expense accounts; and there will be new cases of ulcers in 1950.

# Photo-Typesetting

1896



1950

*By Robert E. Russell*

Chief, Photo-Litho Branch  
Engineer Research & Development Labs.  
Fert Belvoir, Virginia\*

**W**ITH photo-typesetting machines and photo-lettering machines now a commercial reality, although extremely limited at this early stage, a review of the development of these complex devices reveals the immensity of the task. History indicates that interest in photo-typesetting machines is not new. Interest in this development began more than 50 years ago, and tracing back through these years, we find over 60 patented machines.

However, not until recently, with the advent of the Fotosetter by Intertype Corporation, and the ATF-Hadego machine, has considerable progress been indicated in the development of such devices for handling volume production. There are many reasons for this, too many to outline here, but a brief review of a few of the more prominent developments will provide a picture of what has gone before.

On these pages are pictured more than a dozen different machines, most of which have never reached the stage of commercial use. The captions provide a brief summary of each of these. Also included are illustrations of some of the machines either actually on the commercial market now, or in an advanced stage of development. We will deal with these more fully. (We are indebted to Herman R. Freund, vice president of Intertype Corp., for some of these illustrations.)

Of course the general acceptance by lithographers of these machines as a normal part of production will come about only after the devices have actually been operated in a number of plants, and have proved their usefulness over a period of time under the many varying conditions prevailing in commercial lithography.

\* Based on a talk before a recent meeting of the Washington Litho Club.

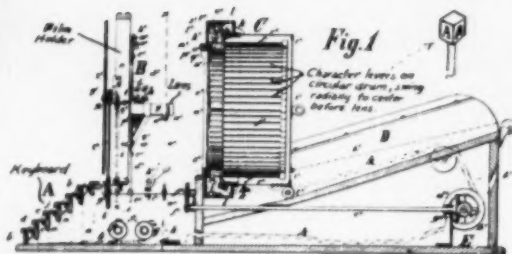
(No Model.)

E. PORZSOLT

4 Sheets—Sheet 1.

APPARATUS FOR SETTING TYPE AND SIGNS BY MEANS OF PHOTOGRAPHY  
No. 568,988

Patented Oct. 6, 1896.



(Above) As early as 1896, Porzsolt, in Budapest, proposed the first single alphabet machine using character-bearing keybars. In response to the keyboard, the selected keybar, carried in an upright stationary drum, would swing inward to present its character to the optical axis through the center of the drum. The character was then illuminated and exposed on the sensitized plate or film, which advanced after each exposure.

(Below) In 1925, Smothers in Holyoke proposed the first circulating matrix machine for photo-composition. Here a standard slug casting machine was converted for photography. The metal pot was replaced by a camera. The Smothers matrix carried a transparent character on glass in its edge. The assembled line was projected by transmitted light onto the sensitized surface.

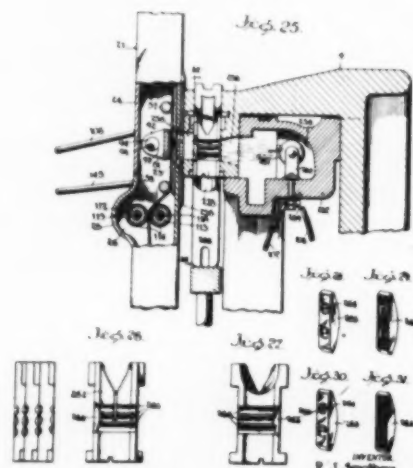
Sept. 15, 1925

R. J. SMOTHERS

1,553,920

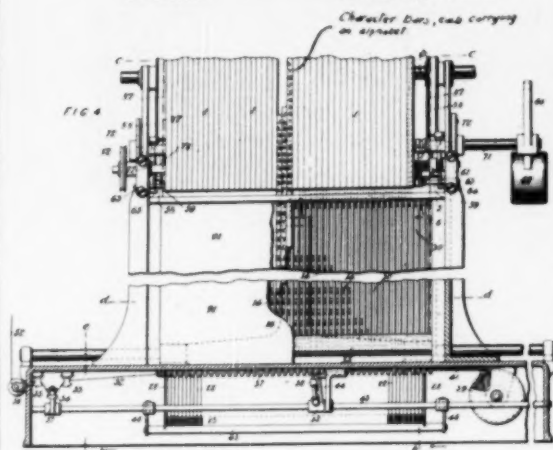
PHOTOGRAPHIC TYPESETTING MACHINES

Filed July 11, 1924 12 Sheets—Sheet 11





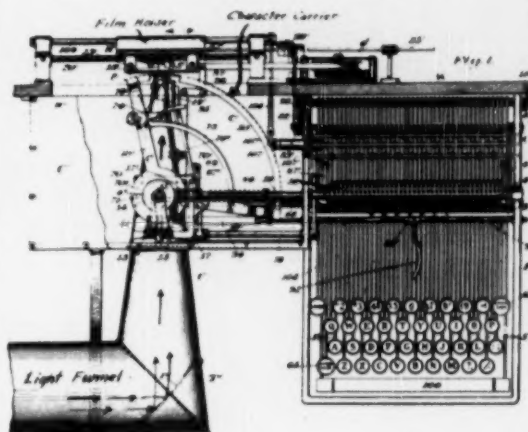
No Model: **W. FRIESE-GREENE.** 11 Sheets-Sheet 1  
**MEANS FOR COMPOSING CHARACTERS AND PRODUCING PHOTOGRAPHIC**  
**NEGATIVE THEREFROM.**  
 No. 802,439. Patented Apr. 19, 1898.



(Above) In 1898, Friese-Greene of England proposed the first multiple letter-bar machine. Here, upright letter-bars arranged side by side in a magazine, carried an entire alphabet of letters, white on a black background. In response to the keyboard, the selected bars were released and, by gravity, reached a stop position corresponding to the letter on the key struck. The composed line appeared through a slot where it could be read and illuminated for photographing.

(Below) The Uhartype machine first appeared in Hungary in 1925. The first style of this machine employed a glass alphabet cylinder which rotated in response to a perforated tape. Characters were reproduced in end-to-end lines on a sensitized ribbon film. Later this ribbon was cut at the end of each line and the lines assembled in galleys form. In a later proposal, rotation of the glass cylinder and advancement of the film were effected by an assembled line of so-called control bodies.

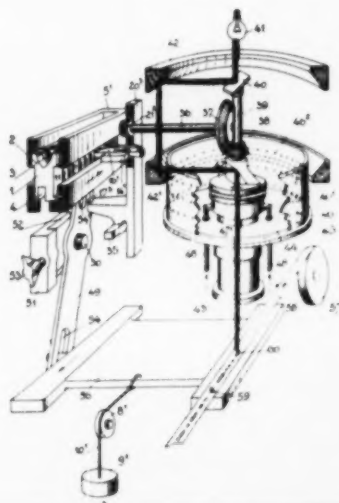
No. 538,963. **F. H. RICHARDS.** Patented Oct. 31, 1899.  
**IMAGE FORMING MECHANISM.**  
 No Model. 9 Sheets-Sheet 1.



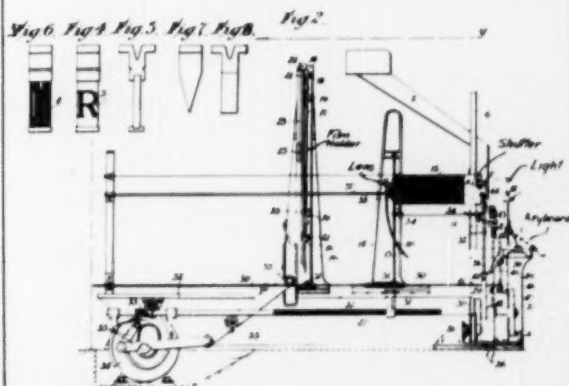
(Above) In 1899, Richards of Baltimore proposed a single alphabet machine with transparent characters arranged on a sector. Operation of the keyboard caused the sector to oscillate and present the desired letter to the optical axis. This appears to be the first machine to photograph by transmitted light.

(Below) In 1926, Robertson in England proposed his circulating matrix machine which was very similar to Smothers'. His matrix, although different in form, also carried the character in glass on its narrow edge. In 1929, August and Hunter of London proposed a single alphabet machine (not shown here) of the film band type. This machine operated in response to a perforated tape prepared in advance on a special typewriter. From available information, it appears that this machine was developed to a high degree.

March 14, 1933. **E. UHARTY, JR.** 1,901,013  
**PROCESS AND APPARATUS FOR PHOTOGRAPHIC TYPE COMPOSING**  
 Filed June 29, 1932. 2 Sheets-Sheet 1



Jan. 26, 1926. **J. ROBERTSON.** 1,571,170  
**PHOTOGRAPHIC TYPE SETTING MACHINE**  
 Filed Jan. 21, 1922. 3 Sheets-Sheet 1



May 26, 1936

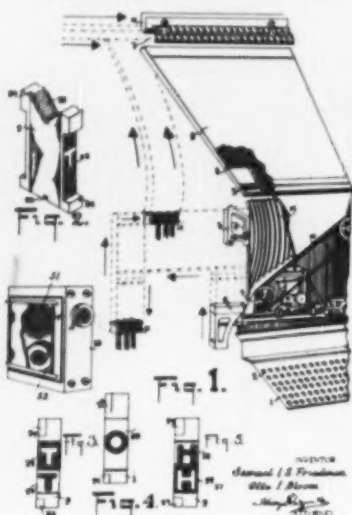
S. I. FRIEDMAN ET AL.

2,042,941

COMPOSING AND REPRODUCTION DEVICE

Filed March 9, 1935

4 Sheets-Sheet 1



Mar. 21, 1939

W. C. HUEBNER

2,180,417

MACHINE FOR PHOTOGRAPHICALLY COMPOSING TYPE CHARACTERS

Filed Jan. 31, 1937

11 Sheets-Sheet 2

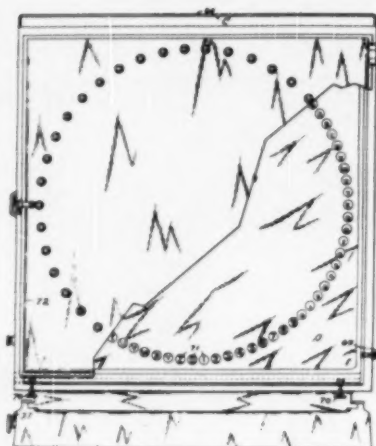


FIG. 3

(Above) In 1936, Friedman and Bloom in New York proposed substituting a camera for the metal pot on a standard line casting machine. This machine was similar to the two previous attempts. The matrices were regular standard matrices with opaque characters on the edges. The characters were projected onto the sensitized surface by reflected light.

The Fotosetter, (below), developed by the Intertype Corporation, Brooklyn, N. Y. has the general appearance of the normal slug-casting machine with the casting mechanism replaced by a camera. (See also ML, Dec. 1949, Pg. 83.) The Intertype Fotosetter is designed on the "letter by letter" principle of photographing each character individually rather than on the "line by line" principle of photographing an entire line at a time.

Circulating matrices are used. Stored in magazines, they carry tooth combinations for distribution into these magazines. Manipulation of the keyboard releases the matrices from the magazine and assembles them in the assembling elevator in lines of any length up to 42 picas. Here the

operator may make any corrections necessary just as he does on a slug casting machine.

After the line is delivered to the justifying mechanism, the camera begins to function and the assembled line is projected and photographed letter by letter.

Simultaneously the line is automatically justified to a predetermined length, line after line and with any desired spacing between lines. After the line has been photographed, the matrices are automatically returned to the magazines to be used again. Should composition be interrupted for any reason, the second elevator, which has raised the line of matrices just photographed, stops automatically in a position for reading. Here the operator may check the line previously set and photographed.

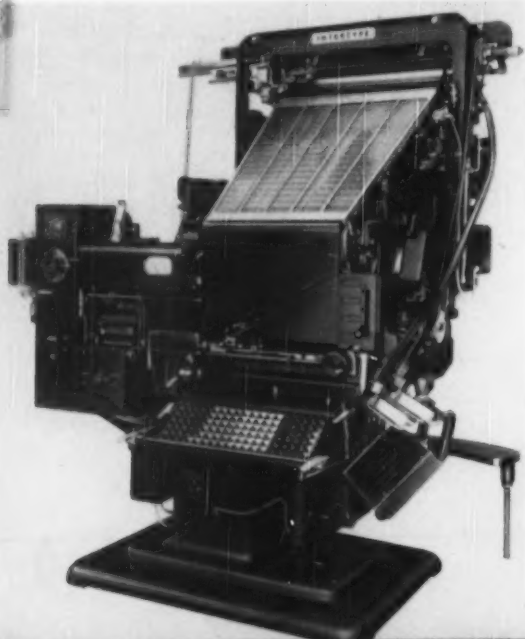
The master character or design, (shown below) in the form of a negative photographic image, is embedded in the side of the matrix, secured in position and protected.

Because the principle of circulating individual matrices is used and because each matrix thickness is equal to the width of the character it bears, each letter is spaced and aligned during the process of photographing on the sensitized film or paper.

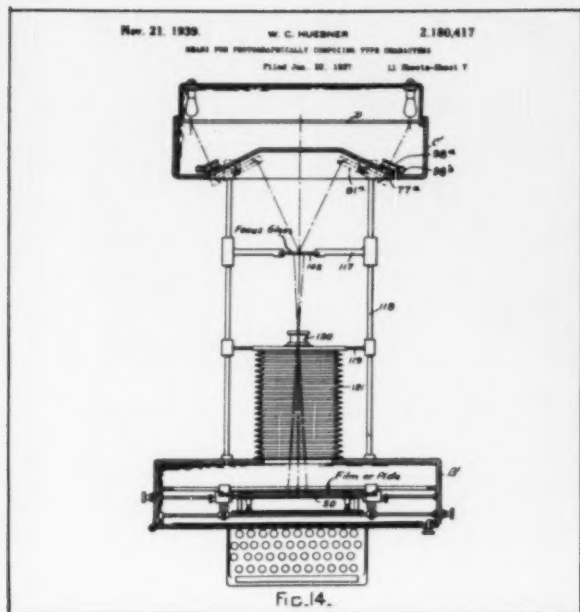
The matrices are advanced vertically to the light beam for photographing and, finally, to the distribution position by intermittent motion at a speed far exceeding any operator's ability to compose.

The film feeding mechanism has two film containers. In one of these containers as much as 20 feet of film can be stored. After the line has been photographed, a special feeding mechanism advances the film a predetermined amount and feeds it into the other or receiving container. This container can be removed for development at any time, in daylight and with any amount up to 20 feet of exposed film.

As many as 8 lenses can be mounted in a lens turret and, by means of knob and dial, any one of these lenses can be positioned with respect to the optical axis. These lenses are pre-focused to magnify or reduce the matrix character and to project the character image onto the sensitized paper or film. By this means, the Fotosetter can set 8 different sizes of type matter from the same font of matrices and, for the entire range of regular sizes from 4 to 36 points, only two fonts of matrices are required.



NOTE—In the description of the Fotosetter machine, carried in Dec., 1949 ML, (pp. 83-84) it was stated that the camera unit photographs matrix letter images "at a rate up to 320 characters per minute." The actual rate of exposure is 480 characters per minute, according to word released by the Intertype Corp., manufacturer of the Fotosetter.



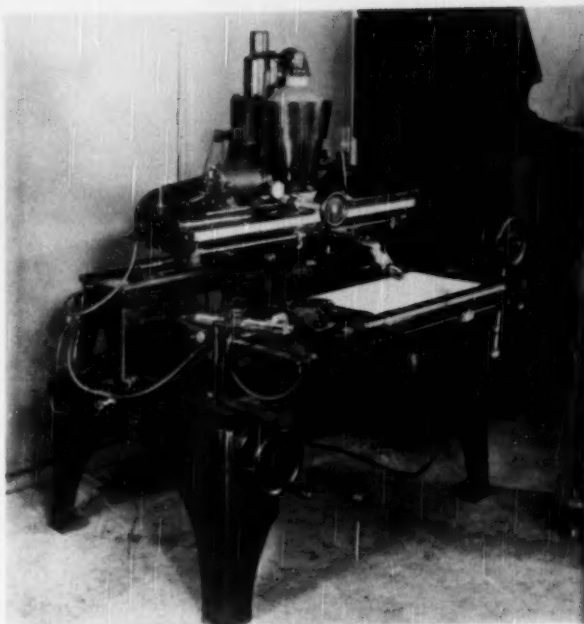
(Above and opposite) W. C. Huebner patented a machine wherein the characters of a type face are arranged around a stationary disk-like character plate. For each character, there is provided a complete optical projection unit comprising lens, shutter, light and reflecting mirrors.

Upon operation of the keyboard of the Huebner machine, the projection unit for the selected character is electrically activated to project and photograph the character. Instead of a keyboard, a previously prepared perforated tape can be used to control selection of the projection units.

The Westover, or Rotofoto phototypesetting system (right) developed in England, is based on Monotype practice. The equipment consists of four machines. The first is a standard Monotype keyboard. Actually the same ribbon or tape can be used for both operations, casting type or photographic images.

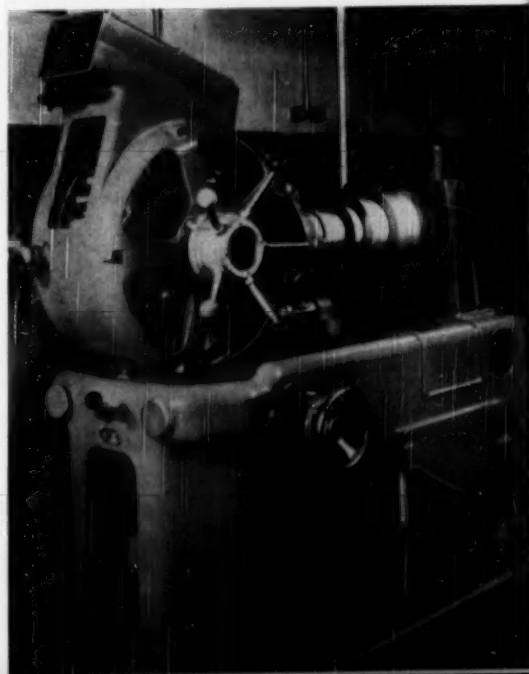
The line-projector (not shown), is the second machine, and produces a long column of justified lines at a reduced scale on standard 35 mm perforated film. The 35 mm film, after development, is passed to the third machine, the proof machine, which enlarges the lines on the 35 mm film about three diameters. It is fully automatic and projects a line at a time. The proof characters on paper are positive (black on white and about 11 point in size). The next operation consists in cutting and pasting the proofs up to form pages which in turn serve as key-proofs to the operator on the fourth and last machine.

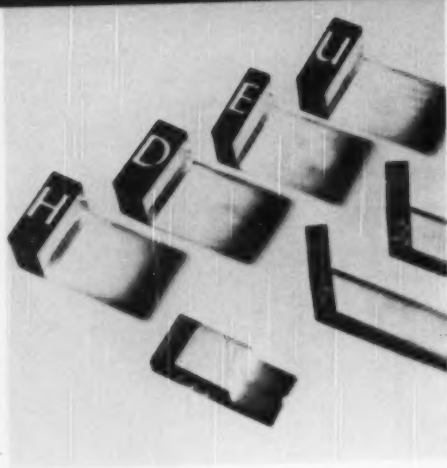
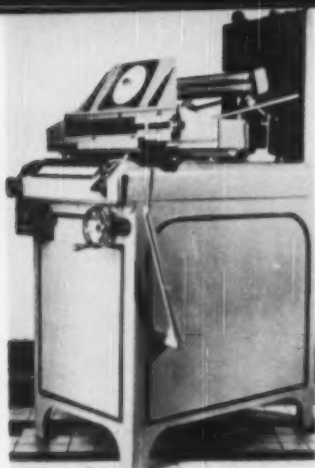
No particular skill or accuracy is required for cutting and pasting up of the proofs, since they are used only as a guide to the machine operator and never as an object for reproduction by photography. The operator of the fourth machine, (shown right), the make-up machine, follows these key-proofs and projects correct lines or by-passes faulty ones, to achieve the same sequence of lines as on the film. One correct version of every line of copy is required. The make-up machine consists essentially of a cylindrical lamp housing around which are located five stations, each fitted to take a roll of the 35 mm film produced by the line projector. On one of these stations is positioned the original text matter, on the next, the film having the corrections on the next, headings, and so forth. It is equipped with a viewing attachment which enables the operator to see any line before it is projected. The machine projects from 5 to 14 point and the end product of the system may be nega-



(Above) In 1930, the Ogden-Rutherford machine was commercially produced for the trade. In general, this machine produces a single line of display type rather than pages of text type. The master or matrix which consists of a glass slide with transparent characters (negative) is inserted in the machine and by turning a hand crank, the desired characters are positioned. As a character is brought into position, a light image of the letter is projected actual size onto a layout, making it possible to fit the letter in the exact position wanted. When it is properly placed, an exposure is made on film, dry plate or sensitized paper, and the next letter is brought into position. Some of these machines are still in use today.

tive or positive depending upon the chemical processing. Further information is available from George Westover, Coventry Gauge and Tool Co., Ltd., Fletchamstead, Coventry, England.





The Hadego matrices consist of a plastic block, approximately 1 1/4 inches high by 3/4 inch thick. Upon the black face of these blocks a white image of the letter or character is created by photo-chemical methods. By this system, it is claimed that the image will not disappear through handling and can be cleaned with water, benzine or alcohol. The spacing material consists of black plastic blocks.

In contrast to other machines described like the Foto-setter, Rotofoto, Lithomat, the ATF-Hadego machine (above) photographs the entire matrix line with one exposure. The ATF-Hadego is an invention of Dr. H. J. A. de Goeij, Haarlem, Netherlands. American Type Founders, Elizabeth, N. J., is the exclusive licensee of de Goeij for the manufacture and sale of the machines in the Americas.

The operation of the machine may be compared in principle to the Ludlow hot-metal machine. It is capable of producing 19 to 115 point type or the proportional equivalent from any one matrix size with approximately a 7-inch focal length lens. When a smaller type size is necessary, smaller matrices may be made. For example, 20 point matrices may be reduced to 4 point and enlarged to 36 point.

The operation of the ATF-Hadego machine requires four stages: (1) Hand-setting and spacing the matrices in a stick with a setting width of 140 picas (approximately 24 inches); (2) Adjustment of ratio to give the degree of enlargement required (maximum width is approximately 10 inches); (3) Exposure, a button on the timer is pressed and the lamps and shutter operate automatically; exposure time is previously determined by the speed of the film used; the timer adjusted accordingly. Light intensity is constant due to automatic mechanical linkage incorporated in the design; (4) When the exposure is completed, the lever on the right of the machine is pressed forward and returned, which automatically moves the film the required distance, usually that of the line plus leading desired.

There are three light signals for the guidance of the operator. If there is no film holder in the machine, or if it is not in position, there is a red light. A green light flashes that all is ready and that an exposure can be made. An orange light warns that the end of the film is close. As previously mentioned, this machine is capable of producing 19 to 115 point or the proportional equivalent from any one matrix size on a normal film size of 11 x 14 inches. This machine is now offered by American Type Founders, Elizabeth, N. J. ATF also has announced that a companion machine for setting regular composition, is nearly ready for release.

The Lithomat machine (right) was invented in France by two telephone engineers, Rene A. Higonnet and Louis Moyroud. Its chief promoter and future builder is the Lithomat Corporation of Cambridge, Massachusetts. Its financial backer, a new non-profit organization, is Graphic Arts Research Foundation, Inc., which will hold the patents to the device. The mechanism of the Lithomat machine involves the principles of high speed stroboscopic photography, photo-electric light cells and dial telephone selectivity circuits. It has four basic parts: (1) An electric typewriter; (2) A memory unit; (3) A counter-justifier, which is an electrical computing and control system; and (4) A photographic unit.

As the operator works the typewriter keyboard at normal speed of a fast typist, each character is printed, coded and stored in the memory section by what is known as the binary code as in computing machines at Harvard and elsewhere. Meanwhile, the counter-justifier takes account of the space required for each letter. When the operator completes a line, proofreads and corrects, he pushes a key. The counter-justifier automatically fills out the spaces between the words so that the line justifies. While the operator goes ahead and sets another line, the completed line is scanned

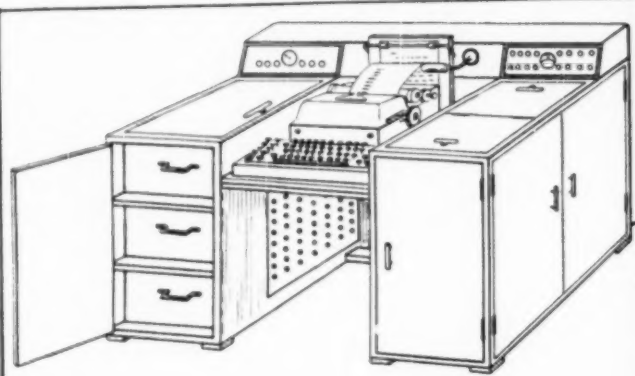
and sent, as electrical impulses, to the heart of the machine. This is a disc or drum containing the matrices, which rotates very rapidly. When an impulse arrives from one of the coded characters, a beam of light is triggered by a photoelectric cell. The beam passes through the right hole in the whirling disc, then passes through a lens system focused on the photographic film. The memory system controls the timing so precisely that character or number is recorded on the film with exact spacing. Afterwards, you have only to develop the film to a positive or negative.

The Monotype photo-typographical machine (not shown) is sponsored by The Monotype Corporation, Ltd. of England. It is controlled by a perforated tape similar to that produced on a standard Monotype keyboard. The type characters or masters, in place of being separate matrices, are negative transparent images on a sheet of glass. This master plate is mounted so that it can be moved in two directions to bring the selected character in line with the lens of the machine. These movements are controlled by the perforated tape.

The characters are projected letter by letter onto the sensitized film material which remains stationary throughout the exposure of the line. A movable mirror system reflects the characters onto the film in proper space relation. The film is advanced between lines only to bring a new strip in position to receive exposure.

A lighting unit is situated above the master plate and projects the selected character through a tube onto the sensitized material. The justification mechanism consists of a group of wedges similar to those of a Monotype type-casting machine.

In the pilot model machine, the type sizes are limited to a range of 4 1/2 point to 14 point. From each master plate, three point sizes of characters can be obtained. Characters can be composed and photographed at 140 per minute.



PROJECTED PHOTO-COMPOSITION SYSTEM ASSEMBLY





# Suppliers are Having Cost Problems, Too

THE HIGH COST OF SELLING IS BAD FOR BOTH SUPPLIERS AND LITHOGRAPHERS

By *Harry Grandt* Vice President, Roberts & Porter, Inc.

IT'S going to be a good year in 1950, we are told. But it sounds like doubletalk when business and sales "experts" start saying things like "those who can keep in advance of their competitors will have a promising future in store." That's what a speaker recently said to the National Council of Salesmen's Organizations. Citing the country's potential buying power, the speaker said that individuals hold \$200,000,000,000 in liquid assets—three and one-half times as much as in 1939. But what he didn't point out is that this "three and one-half" figure also reflects highly inflated liquid assets.

The point is that what's good or bad for the future of business in general, is also good or bad for the lithographic industry, suppliers and lithographers alike. Nobody knows what's ahead. Right now, lithographers are concerned with rising costs of operation, and so are suppliers. There is an economic problem bothering many suppliers that indirectly adds to the cost of supplies and equipment purchased by lithographers.

The problem is the high cost of selling.

Selling costs have increased more

than three times over 1939 and are still rising. Volume of sales and margins of profit—I'm speaking of the litho supply field only—have not nearly kept pace. If the present trend continues during the next quarter we shall have to do something about it to prevent too-high selling costs from further increasing the price of goods sold to lithographers.

We shall have to: 1). Increase the litho supply salesman's actual selling time; 2). Better coordinate his effort with his opportunity; 3). Improve his productivity as a salesman; and 4). Motivate him to greater and more intelligent effort.

Now, there are a number of factors which influence the supply salesman's job which are outside his control and that of his sales manager. The reason for this article is to try to pin down some of those factors, and to let the lithographer listen in on some of these problems. Obviously a discussion of all of them would embrace the entire range of sales management. So . . . our only objective here will be to focus attention on those factors which are specifically affected by the relationship of the lithographer and his supplier.

What has some of us worried is how can we (and maybe you) help save the time of our supply salesmen, step up their selling effectiveness, do a good job for you—particularly in the way of greater service and technical assistance—and at the same time keep our selling costs in line. Look at it this way:

In the litho supply field success depends on both strategy and strength. The average litho supply salesman's day starts before 9 o'clock in the morning. And it's usually 5 o'clock in the evening before he gets back to his office or hotel. In that 8 hour period he is doing well (very well under present conditions) if he spends three hours in actual, face-to-face selling. He has to locate his customers, get to them, wait until they're ready to see him, make out reports, travel to the next litho plant—and so on. In an analysis we recently made of our staff's time, it broke down, on the average, as follows:

26 per cent in travel  
24 per cent in waiting  
20 per cent listening  
30 per cent actual face-to-face selling

(Continued on Page 89)



# IMPRESSION SLUR

## *its cause and cure*

By Robert F. Reed Research Consultant, Lithographic Technical Foundation\*

ONE of the most common defects in offset printing is the slurred impression. There are several types of slur but the most prevalent one is due primarily to excessive impression cylinder pressure. It shows up most commonly when printing coated stock, but is also seen occasionally on uncoated papers.

Slurring caused by excessive impression occurs principally in halftone shadows, in reverse lettering, and at the edges of solids and heavy block lettering. It may not appear at all in halftone highlights or in fine lettering. It is always at the back edge of the ink impression and looks like a "drag." In halftone shadows it may appear as a filling in, and in such cases, its true nature can be seen only by examining the middle tones.

Slur due to excessive impression is

often uniform from the front to the back of the sheet. This characteristic differentiates it from the "double" that sometimes occurs along the back edge due to the paper "slapping" the blanket prematurely. It may be worse in some spots than others, but the fact that it does not occur in streaks differentiates it from slurring due to a loose blanket.

Impression slur appears on the blanket as well as on the paper and can be seen if the color of the blanket permits. The plate usually will remain clean and show no slur, at least during the early part of the run. However, the slur on the blanket may eventually sensitize the plate and produce corresponding scummed areas.

### **Excessive Pressure**

The illustrations (p. 32) show slur that results from excessive impression.

Notice the appearance of the halftone shadows and solids, together with the absence of slur in the highlights.

Now, let's examine the mechanics of the impression and see how excessive pressure causes slurring. Assume that the blanket is packed exactly to bearer height and that the impression cylinder has exactly the same diameter as the blanket cylinder bearers. In this case the surfaces of the blanket and impression cylinder have exactly the same speed as long as there is no impression squeeze. There is no tendency for slippage between the two cylinders, or between either cylinder and a sheet of paper between them, as long as there is no pressure.

In order to print, however, the impression cylinder must press the paper

\*From Research Progress, No. 15, to be issued soon by the Lithographic Technical Foundation.

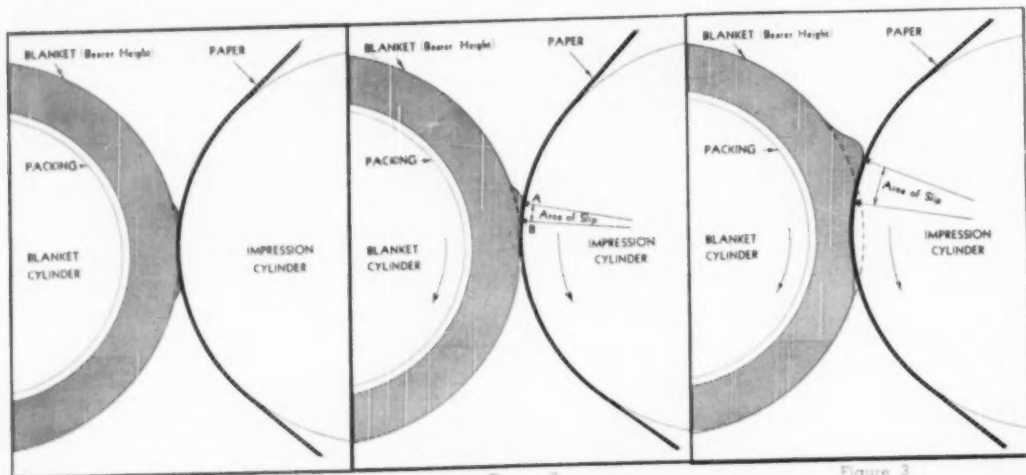


Figure 1

Figure 2

Figure 3

into the rub or surface of the blanket. What happens then is shown in the diagrams.

Figure 1 shows a typical packing condition in which the blanket is exactly at bearer height. The thickness of the paper (.004 inch) is sufficient to provide normal printing pressure between the impression cylinder and the blanket. If the pressure were applied with the press standing still, the blanket would bulge slightly on both sides of the impression as shown. This bulging increases the circumference of the blanket so that it actually becomes greater than that of the bearers and of the impression cylinder. Keep this fact in mind since it is at the root of this type of slurring.

Now, if the cylinders in Figure 1 are rotated, the increase in the effective circumference of the blanket causes the condition shown in Figure 2.

All of the excess blanket surface collects and produces a bulge ahead of the impression. The size of this one bulge will be at least equal to the combined size of the two bulges shown in Figure 1.

If the printing is to be clean, the speed of the surfaces of the blanket and impression cylinders must be equal at bearer height (pitch line). But when the impression squeeze creates a bulge like that shown in Figure 2, the effective diameter of

the blanket cylinder is increased so that the surface of the blanket moves faster than the surface of the impression cylinder. Since the two cylinders are geared together, the blanket thus tends to lubricate the surfaces and increase the tendency for slippage.

The paper's first contact with the blanket and its first pick-up of ink, is without pressure at point A or the peak of the blanket bulge. As the paper moves into the nip, the blanket slips forward on the paper surface in the "area of slip" indicated in Figure 2, until the increased pressure together with absorption of ink by the paper, produces enough friction to stop the slip at point B. The slippage that takes place slurs the printing.

Ordinarily, with reasonable back-cylinder pressure there is little or none of this slur in offset printing on uncoated papers. But on coated papers which are smoother and more slippery to start with, enough trouble is encountered to justify special precautions. If the back-cylinder pressure is increased for any reason, the blanket bulge becomes greater and the area of slip wider as shown in Figure 3, and the slur becomes worse.

In addition to excessive pressure there are three things that can aggravate this type of slur. First, the greater the amount of ink being run, the more lubricating effect it will have between the blanket and paper and the worse will be the slur. Ink should therefore be run as spare as possible, especially on coated and enamel stocks. The second factor is the smoothness of the paper. The greater its smoothness the greater will be the lubricating effect of any given film of ink.

The third factor is the system of packing the plate and blanket cylinders. In Figures 1, 2, and 3, the blanket is packed to bearer height which requires that the plate be packed to .004 inch above bearer height. If the plate is packed to bearer height and the blanket .004 inch above, the tendency to slur will be even worse since the blanket circumference will be greater to start with.

For minimum slurring tendency, the blanket should be packed some-

what below bearer height and the plate correspondingly above. The desired condition is shown in Figure 4. As in Figure 1, the bulge in the blanket caused by the necessary pressure of the impression cylinder again increases the effective circumference of the blanket. But since the blanket is below bearer height, the increase serves only to make its effective circumference the same as that of the impression cylinder. The compression bulge of the blanket thus becomes equal on both sides of the nip when the press is running as shown in Figure 4. The surface speeds of the blanket and impression cylinder in the area of contact are therefore as nearly equal as it is possible to get them and there is no tendency for the blanket to slip on the paper as it passes through the nip. The same is true of the surface speeds of the plate and blanket and plate wear is minimized.

#### How To Pack

Just what packing system should be used for minimum slurring? The answer to this question depends on the diameters of the cylinders. The rule-of-thumb method is to (1) overpack the plate .0005 inch for every inch of cylinder diameter, and (2) underpack the blanket the same amount less .004 inch to provide squeeze pressure.\* Thus for a press with 20-inch cylinders, the plate should be packed .010 inch above bearers (20 x .005), and the blanket .006 inch below the bearers (.010— .004). However, this method works correctly only if the impression cylinder is the same diameter as the built-up plate, namely 20.20 inches, and is recessed opposite the bearers of the blanket cylinder. If, as in the case of most presses, the impression cylinder has about the same diameter as the bearers of the plate cylinder, you cannot go this far but must compromise.

In such a case, overpack the plate .00025 inch for each inch of cylinder diameter, and underpack the blanket the same amount less .004 inch. Thus on 20-inch cylinders the plate would

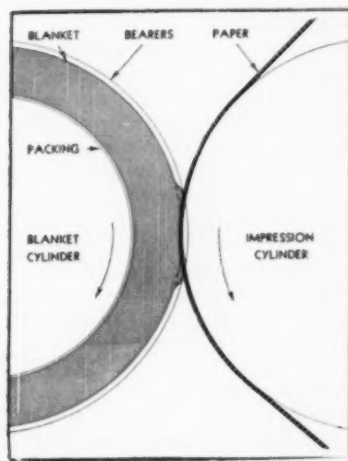
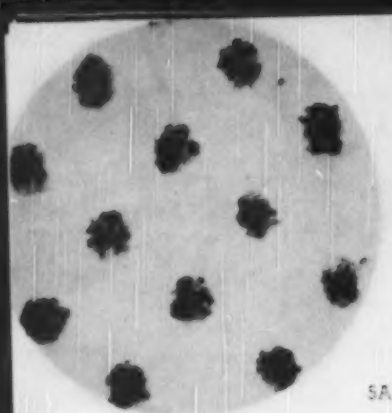
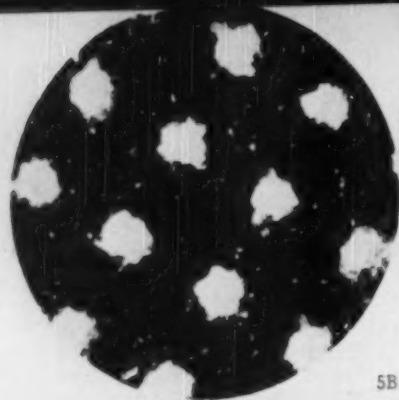


Figure 4

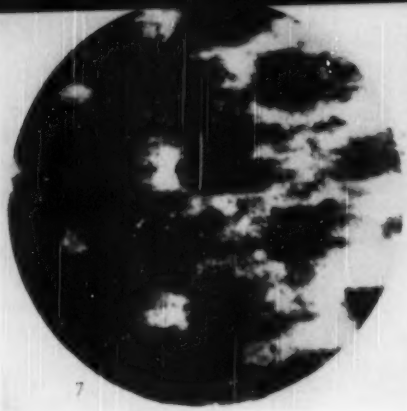
\*See U. S. Patent No. 2,936,435 to B. L. Sites, Miehle Printing Press & Mfg. Co.



5A

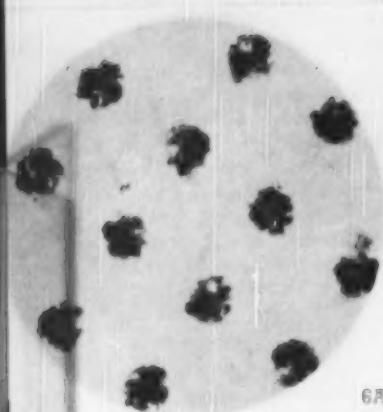


5B

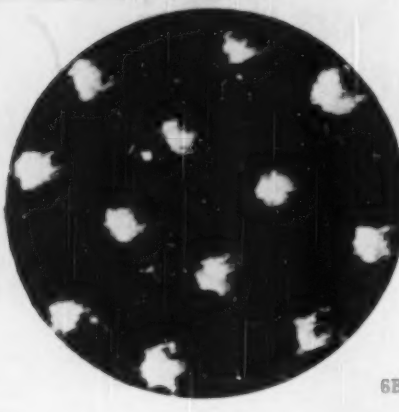


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Fig. 5. A and B. Highlight and shadow dots printed with correct back cylinder pressure. (100X)



6A



6B

Fig. 6. A and B. Dots printed with excessive pressure. Note that highlight dots do not slur. (100X)

Fig. 7. Grossly slurred shadow dots. Slurring to this extent is not common, but does occur. (100X)

be .005 inch above bearers and the blanket .001 inch below. Unless the impression cylinder is recessed opposite the bearers of the blanket cylinder, this, of course, will work only for stocks .005 or more thick. Otherwise, the blanket must be packed to bearer height plus .004 inch minus the paper thickness. For example, if the paper is .003 inch thick, the blanket should be packed to .001 inch above bearers which is very close to the packing system shown in Figures 1, 2, and 3. This is not ideal but it will produce good slurless printing provided the squeeze pressure is kept to a minimum and is uniform.

With regard to the squeeze or back-cylinder pressure, it is a fact that 304 thousandths is enough to produce a good impression on almost any paper. But the indicator on the back-cylinder adjustment does not always tell the truth. Many pressmen move the back cylinder up just

enough to give a light "kiss" impression and then patch the blanket, if necessary, to eliminate low spots. They then move the back cylinder up 2-4 thousandths, or enough to give a good impression. On some presses 2-4 thousandths is enough. On others, particularly small presses, it may be necessary to move the back cylinder up as much as 8-10 thousandths, according to the indicator, to get a satisfactory impression. The reason for this is a combination of bearing clearance and "give" or spring in the cylinders and their shafts. On a 17 x 22" press, for example, the pressure produced by 4 thousandths impression may be as much as 1500 pounds between the cylinders. As a result, the cylinders are sprung apart before enough pressure is produced for good printing. The pressman's only recourse is to move the back cylinder adjustment up still farther, possibly to 8 or 10 thousandths. However, if this produces a

good impression, it is more than likely that the true impression is only about 4 thousandths. The best rule to follow, therefore, is to increase the impression gradually until a good impression is just obtained. In other words, use a minimum of pressure.

#### Uneven Slurring

So far it has been taken for granted that the cylinder surfaces are perfectly true and that the blanket and plate are uniform in thickness. If this is not the case, slurring can occur on some areas of the sheet and not on others due to local excessive pressure. Such a condition calls for a thorough checking of the press, and truing up of the cylinders if necessary. Once this is done, low spots in the blanket can be built up with tissue to provide uniform squeeze pressure. However, if high spots producing excessive pressure are the result of an embossed blanket, it is best to put on a new one.★★

# Air Conditioning

## PART THREE\*

**F**OR air conditioning units of sufficient size, existing or projected, the safest procedure is for the architect or management to employ a consulting air conditioning engineer. One of his functions is to obtain from management and from the plant technologist a clear understanding of the plant's lithographic requirements, the concessions to investment and operating costs which are technically sound from the lithographic viewpoint, the balance between depreciation (the cost of ownership) and operating costs, and the total investment which meets with the approval of management.

He will then draw up specifications based upon a survey of the plant and design an air conditioning system to fit the technical and financial requirements. Customarily, he will then secure competitive bids from contractors, supervise installation and assume responsibility for the proper adjustment and initial operation of the air conditioning system.

But for the small installation, employment of a consulting engineer may be unnecessary. It is not so much that the plant cannot afford the consulting engineer, but rather that the consulting engineer cannot afford to accept responsibility for a small or medium-sized installation. In general, if the cost of installation is below

\$5,000, employment of a consulting engineer is unnecessary.

It will be noted that distinction is made between a large and small installation, not between the large and small plant. The installation for a large plant with air conditioning only in the plate room, and in all departments where acetate film is handled (which frequently is the first air conditioning introduced), would be a comparatively small installation; whereas a small plant with complete air conditioning would be by comparison, a large installation.

For the small or medium-sized installation, the best procedure is to request bids from air conditioning contractors who employ competent air conditioning engineers. A psychrometric survey of the plant, conference with management and the plant's technologist, and design and installation of the air conditioning equipment will follow much the same lines as outlined before. Previous experience of the contractor in the air conditioning of a lithographic plant, or recommendation from a source acquainted with the contractor's experience in industrial air conditioning (preferably

with lithographic requirements), should be regarded as necessary for the selection of a contractor. A competent plumbing contractor without air conditioning experience should be ruled out.

In selecting a consulting engineer, it is important that he have a background of experience in air conditioning. Many good and reputable consulting engineers have not had this experience.

When obtaining estimates from air conditioning contractors, it is of importance that the lithographic requirements of a proposed air conditioning system be clearly stated—that each contractor may offer specifications and bids to produce identical results.

After specifications and bids have been submitted, decision may be aided and serious errors of over and under-estimation detected, by tabulating the following comparisons:

- (1) Total estimated cost.
- (2) Estimated upkeep cost.
- (3) Total tons of refrigeration required, (both when dehumidification is by refrigeration, or refrigeration is used only for temperature control).
- (4) Cost per ton of refrigeration (in either case).
- (5) Cost of dehumidification equipment by sorbents, if used.
- (6) Capacity of above equipment in terms of cubic feet per minute.
- (7) Cost of this equipment in terms of cubic feet per minute.
- (8) Cubic feet per minute of air circulated, broken down into fresh and re-circulated air.

Our purpose is to supply management and the technologist with the background of lithographic requirements of air conditioning at each step of the lithographic process, and with a sufficient knowledge of psychrometrics and air conditioning procedure that conferences with the air conditioning engineer or with the contractor will lead to an air conditioning system precisely fitted to the present and future needs of the particular lithographic plant. If a thoroughly trained lithographic technologist is not employed by the plant, a com-

\*This series of articles comprises excerpts from the book "What the Lithographer Should Know About Air Conditioning," compiled by Karl Davis Robinson, and being published by the Lithographic Technical Foundation, 131 East 39 St., New York 18, N. Y. (\$2.50) The book is to be issued soon.

petent consultant can do much to insure thorough understanding between management and the air conditioning engineer or contractor.

#### **Properties of Air**

In order to understand the application of air conditioning equipment to meet the requirements of the lithographic plant, it is necessary first to understand the properties and behavior of air. The air conditioning engineer has a fundamental knowledge of thermodynamics and a command of specialized engineering data. The lithographic technologist, who has a knowledge of atmospheric requirements from the lithographic viewpoint, must have some knowledge of the properties of air—in order (1) to work closely with the air conditioning engineer and to advise him on lithographic requirements and permissible variation from optimum requirements to meet practical design problems; (2) to furnish management with data and comment on the recommendations of the air conditioning engineer, that management may have a clear understanding of all factors involved in its decisions; (3) to maintain the air conditioning system when installed.

The following description of the properties of air is for the benefit of the lithographic technologist. It comprises his minimum requirements. As in the case of other scientific and engineering fields important in lithography, the lithographic technologist will increase his value to the industry if he broadens his knowledge beyond minimum requirements. Sources of such knowledge will be found in the bibliography of the LTF air conditioning book.

#### **The Atmosphere**

Dry air consists of a mixture of certain gases in almost constant proportions. Its approximate composition is:

Nitrogen	78 per cent
Oxygen	21 per cent
Argon and other gases	1 per cent

Included in the last item is carbon dioxide, something like 0.03 per cent. But the oxygen and carbon dioxide content of air in a closed room containing human beings will change as

## **How one plant Prevents Accidents**

Accident prevention at the Racine, Wis., plant of Western Printing & Lithographing Co. is the responsibility of an employees' safety committee whose 16 members include shop foremen, maintenance men and the company nurse.

One of their duties is to make an inspection of the entire plant each month to ferret out anything which violates good safety practices. Groups of four

committeemen explore every nook of the establishment, making notes individually as they go along. Later these reports are compiled into a single report for presentation at the full committee's monthly meeting. After discussion, recommendations are made and placed in the hands of those who will make the necessary adjustments to remove any hazard complained of.

oxygen is consumed and carbon dioxide is exhaled.

The air we breathe is a mixture of these atmospheric gases, water vapor, dust particles, bacteria, oil particles, fumes and odors in varying proportions. Water vapor is seldom present in amounts exceeding 2 per cent by weight; but its concentration, and especially its variation, profoundly affects the lithographic process. Air conditioning in the lithographic plant is designed to control humidity.

Oxygen is easily renewed by replacement with relatively small quantities of outside air. The removal of impurities, contributed by equipment and human beings, requires a combination of (1) greater replacement with outside air than is necessary for oxygen renewal alone, (2) exhaust systems at strategic points, (3) air purification and air sterilization—increasingly regarded as economically important.

#### **Temperature and Humidity**

The temperature of the atmosphere is its degree of sensible heat. The thermometer scale commonly used in America for industrial purposes is the Fahrenheit scale—based upon 32 degrees as the freezing point and 212 degrees as the boiling point of pure water at sea level. To distinguish this scale from others, Fahrenheit temperature is expressed as, for example, 72°F.

Sensible heat is closely associated

with humidity and is an important factor in lithographic processes and in maintenance of health and comfort. The control of sensible heat in the lithographic plant is one function of the air conditioning system.

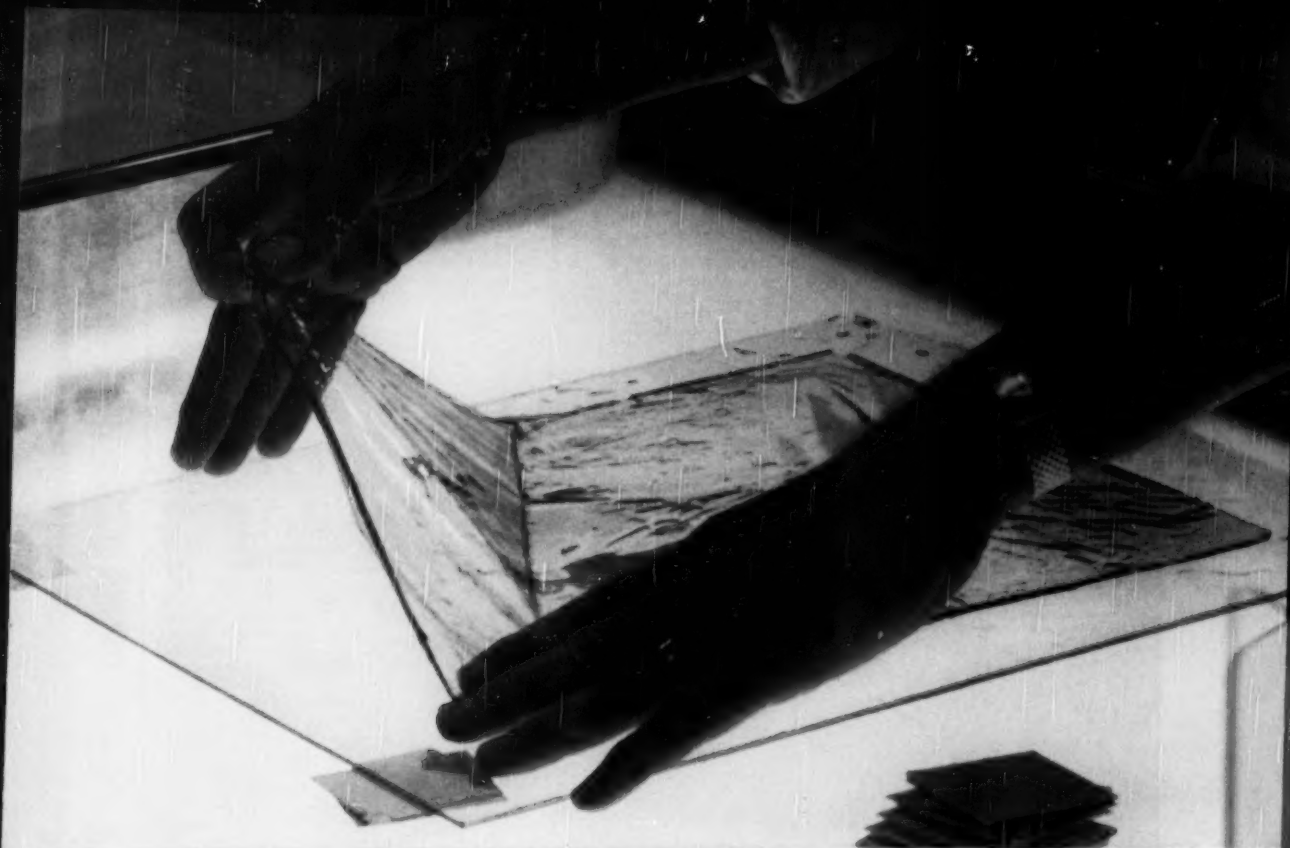
Atmospheric moisture is called humidity. The capacity of air for holding moisture is limited. At a given temperature air cannot hold more than a certain amount of moisture. When this amount is present, the air is said to be saturated, since no more moisture can be added. As the temperature of air drops, the quantity of water vapor that air can hold becomes less and less. For example, a cubic foot of air at 100°F can hold about seven times as much water vapor as a cubic foot of air at 40°F.

Air changes its volume with change of temperature. For example, one cubic foot of dry air at 0°F, at sea level atmospheric pressure, if raised to 70°F would increase in volume to about 1.17 cubic feet. Specific volume is the volume in cubic feet occupied by a mixture of air and water vapor that would weigh one pound if all water vapor were extracted.

Absolute humidity is the weight of water vapor in a mixture of air and water vapor that contains one pound of dry air in terms of grains or pounds of water vapor per pound of dry air.

The amount of water vapor re-  
(Continued on Page 87)





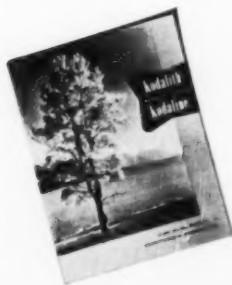
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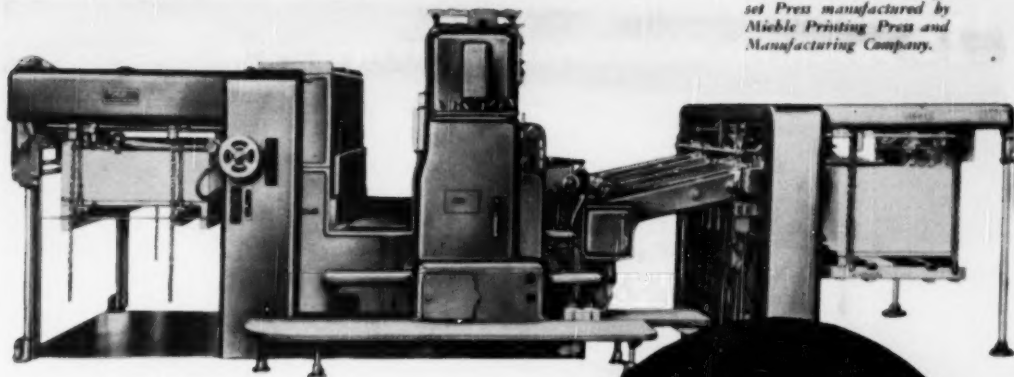
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MODERN LITHOGRAPHY, January, 1950

# Research Roundup

## New etches for bi-metal and aluminum plates among developments reported at LTF meeting

**T**WO new etches, one for removing chromium from poly-metallic plates, and the other for desensitizing aluminum, were announced and demonstrated during a two-day meeting of the research committee of the Lithograph Technical Foundation at the Chicago laboratories December 5 and 6. Some 30 members of LTF research group and board of directors attended the sessions in which new developments were reported and plans for 1950 research were discussed.

The new etch for bi-metal plates has several interesting properties. Formulated for the chromium-copper type of bi-metal plate, the new compound of salts and acid etches chromium but not copper in the image areas of the plate with almost no fumes. This is important because it can eliminate the need for a ventilation system when such plates are made.

The new etch for aluminum is a formulation of cellulose gum containing phosphoric acid and ammonium bifluoride. The use of the bifluoride compound instead of the usual magnesium nitrate greatly improves the desensitizing qualities of the etch on either albumin or deep-etch aluminum plates, it was reported.

The two-day meeting was highlighted by demonstrations of the equipment and methods used in making the research studies. Results of the work on the various projects were reported at the same time.

Important progress has been made on all of LTF's research projects in 1949, it was reported. Especially significant have been the completion of studies on the sensitivity of bichromated colloids (plate coatings) and the investigations of the lithographic properties of metals particularly with surface treatments, and the ink and water wettability of metals and alloys.

Considerable work was done in '49 on the control of tone reproduction. Platemaking can now be controlled by the use of the LTF Sensitivity Guide. Control on the press and camera until recently has defied study but LTF's development of a method of measuring tone reproduction should now make these studies possible and practical.

Details on the status of LTF's more important research projects were reported as follows:

### Sensitivity of Bichromated Coatings

All of the contemplated experimental measurements for this research project are now completed. Over 2500 test plates have been made and are now being analyzed and reviewed preparatory to the writing of a research bulletin. Some recheck measurements are being made on certain phases of the work.

The writing of the research bulletin has been started and will detail the following broad subject headings:

a) The Sensitometry of Bichromated Colloids.

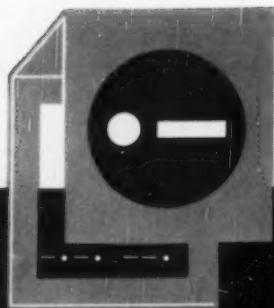
- b) The Effect of Relative Humidity on Rate of Insolubilization of Albumin and Deep-etch Coatings.
- c) The Effect of Dark Reaction.
- d) The Effect of Continuing Reaction.
- e) Other Factors Influencing Coating Sensitivity.
- f) Treatments to Reduce Insolubilization Rates at High R H's.
- g) Spectral Absorption and Sensitivity of Coatings.
- h) Notes on the Photochemistry of Bichromates.
- i) Non-Bichromated Sensitizers.
- j) Application to tone control.

This bulletin will consolidate all the information to date on the sensitivity of bichromated colloids, and it will also supplement LTF's Research Bulletin No. 15, "The Sensitivity Guide."

### Color Control in Printing

The project on color control originally was set up to investigate the factors causing color variations, the extent of color variations, the usefulness of available control instruments, and related problems.

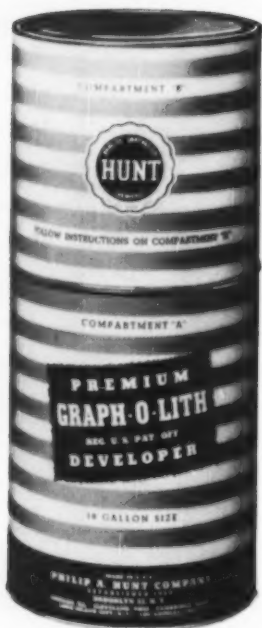
Seven separate surveys were made under actual production conditions to investigate the extent of variations in average commercial lithography and change of color upon drying. The surveys, conducted at two cooperating plants, were made on solid colors, and were designed to cover the following problems:



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...These dots and dashes have a double meaning, depending on how you interpret them. To the radio operator, they spell HUNT PREMIUM GRAPH-O-LITH® ....to the expert camera man, they indicate clean, hard dots and sharp, fine lines—a quality plate in the making.

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1. Existence of thickness patterns over the sheet.
2. Color change upon drying.
3. Correlation with densitometric (single dimension) measurements.
4. Extent of variations on a single sheet.

The use of available instruments for color control on the press poses some problems which have not yet been solved. Instruments are more consistent than the human eye but none has been found that is as precise. Also, no one instrument combines all the properties needed: simplicity, accuracy, reliability, and ease of interpretation.

#### **Improved Desensitization**

**Cellulose Gum.** In addition to the new etch for aluminum plates, new simplified formulas for cellulose gum etch and gum solutions have been developed that do not require stock solutions. Latest recommendations on the use of cellulose gum stress its use as an etch on the plate which can then be gummed with any medium.

**Desensitization of Copper Areas on a Copper-Chromium Bimetal Plate.** A method has been worked out for the desensitization of unwanted image areas on a copper-chromium plate. The area is cleaned of ink, then treated with a special solution and etched with alkaline cellulose gum. Areas so treated have remained clean for 10,000 to 15,000 sheets after which the treatment can be repeated.

#### **Surface Treatments**

**Post-Cronak.** The early work on the use of Cronak following the development of an albumin or alpha soya bean protein image has been extended. This treatment is called Post-Cronak. It has been proved definitely, by contact angle measurements, experimental press plates, and extensive plant tests, that Post-Cronaked plates are much better desensitized than ordinary zinc plates. The experience reported by many plants last summer was phenomenal.

**Post Brunak.** A Post-Brunak treatment on albumin or alpha soya bean protein aluminum plates shows a great superiority over untreated aluminum.

#### **Litho Properties of Metals**

**Wettability Studies.**—Effect of different counter-etches on wettability. Fourteen counter-etches were tested on zinc plates. The wettability of the metal was then measured by means of contact angles. The angles varied from 20° to 42°, and 44° for tap water. (The lower the angle, the more easily wet is the metal surface).

#### **Technical Foundation research committee reports on lithographic research at Chicago.**

The counteretch even affected the contact angle of plates with residual albumin. The angles varied from 92° to 138° and 139° for tap water. Press tests, have shown that areas of plates counter-etched with those materials producing the lowest contact angles were generally better desensitized. Results are incomplete at this time and the work requires further study.

**Eraydo-V Metal** (Zinc with 1% copper). Press tests indicated that the plates are somewhat better desensitized with a given etch than zinc plates with the same etch. However, plate etches streak on Eraydo-V metal plates badly.

**Stainless Steel Deep-etch Plates.** The problem in making successful stainless steel deep-etch plates lies in the greasing of the image areas. Several greasing agents have been tested which show considerable promise.

**Bi-Metal Plates.** A complete survey has been made of the patents and literature pertaining to bi-metal plates. Wettability studies have shown that copper is one of the metals which is least readily wet by water, while aluminum, chromium and stainless steel are wet more easily by water.

**Chromium etch for copper-chromium bi-metal plates.** In studies of wettability and surface treatments of metals, a new combination of salts and acid was discovered which will etch chromium but not copper and

which is almost timeless. If the temperature and relative humidity are not too high, a special formula can be used which will both develop the plate and etch away the chromium in the image areas.

**Fundamental study of the adsorption of litho chemicals on metal surfaces.** It is planned to use radioactive isotopes, such as P32 (radioactive phosphorus) in the form of phosphoric acid to study the adsorption of phosphoric acid on different metals. The use of radioactive isotopes is a powerful new tool in research, and is sometimes able to solve problems which can be solved in no other way. By their use, it is hoped to find the answer to the mechanism of adsorption which seems to be so important to the water wetting characteristics of the non-printing areas of a lithographic plate.

#### **New Photosensitive Materials**

Alpha soya bean protein is being tested as a substitute for albumin. This material, when dissolved properly, mixed with ammonium bichromate, and adjusted to the right Baume' and pH, produces a firmly adhering image on zinc or aluminum plates. The coating is at least twice as light sensitive as egg albumin as determined by the LTF Sensitivity Guide. Aside from speed, the main advantage of alpha soya bean sensitizer is the fact that the material costs only about twenty cents a pound.

#### **Control of Tone Reproduction**

Early studies on the control of tone reproduction in the lithographic process showed how necessary it was to have knowledge of and controls for printing on the press. These were essential before any attempt could be made toward correlating tone reproduction problems involving camera and platemaking. Tone control in platemaking is now possible with the use of the LTF Sensitivity Guide and some tone control studies are in progress on the camera. But, since little or no research has been done in the past on the various aspects of reproduction by the press it was necessary to begin a fundamental study of the entire operation.

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The exploratory studies to date have been concerned with the effects of ink fountain feed; water fountain feed; cylinder pressures; and paper stock, on ink feed, ink squeeze, and ink lay. The results of these tests have been so indeterminate that the only solution seems to be in applying statistical methods of analysis to the problems. The difficulties centered around proper isolation of the variables. Statistical analysis to be dependable requires a large number of individual measurements. To avoid costly, time-consuming manual measurements some new means of making quick accurate tone value measurements had to be developed. This work led to the design of a high speed chart-recording densitometer.

In its present form the recorder is composed of an Ansco Color densitometer connected to an Esterline-Angus chart recorder with a means for automatically transporting a half-tone transparency or press sheet under the search head of the densitometer. Further refinement of the electronic circuit and actual construction of the transporting mechanism are necessary before the instrument will be ready for use in the tone reproduction studies. It is anticipated that this set-up will make possible a rapid analysis of tone reproduction on the press and permit a concentrated study of the effect of the numerous press factors on tone reproduction.

#### **Offset Blanket Studies**

As a result of action taken at the meeting of the Offset Blanket Committee in Chicago in April of 1949, a questionnaire was prepared for a survey of shop practices in the care of offset blankets. Included were questions covering the solvents used in washing blankets, practices in powdering of blankets, life of blankets, and causes of blanket failure on the press. Also included was the question, "In what ways can offset blankets be improved."

The questionnaire was mailed to all member shops and a comprehensive summary of the replies has been prepared for the blanket committee.

The survey showed an outstanding improvement in blanket stretch since the last previous survey in 1935, and

a noteworthy increase in the average resistance of blankets to development of tackiness and glaze.

The project on development of a standard method for measuring blanket thickness sponsored by the blanket committee is about completed. If the recommendations are adopted, they should make possible greater precision, and uniformity, both in blanket manufacture and in the packing of blankets on the press.

#### **Publications**

During 1949, manuscripts were completed on the Technical Bulletin "The Standardization of Graining Procedures" and an Instruction Bulletin on the Cronak and Brunak surface treatments. Manuscripts were prepared for publication one of which will be issued as a Research Bulletin on "Contact Screens" and the other as Technical Paper on "The Control of Tone Reproduction." The Technical Bulletin "What The Lithographer Should Know About Paper" was printed during the year. Another Technical Bulletin on "Air Conditioning" was edited at the laboratory.

Six issues of "Research Progress" written and produced, and two others in work. Completion of these will make the total number of issues of "Research Progress" come to sixteen. An index of all issues up to the start of 1949 was also published.

A new audio-visual (slide film-wire recording) on the LTF Sensitivity Guide for platemakers was produced at the laboratory.

Publications now in work and scheduled for 1949 from the Research Department include:

1. The Sensitivity of Bichromated Colloids
2. Deep-etch Platemaking (Revision and consolidation of previous bulletins).
3. Advanced Platemaking.
4. Six Issues of Research Progress and an Index for 1949.
5. Three Audio-Visuals.

#### **Technical Forums**

In 1949, the Research Department conducted its successful two-day technical forums in Fort Worth and Chicago. An abbreviated version requiring only three men was also pre-

sented in Cincinnati. A forum scheduled for New York Jan. 13 and 14.

#### **Library**

During 1949, a number of important books were added to the Glessner House Library. Approximately 115 magazines are received each month and checked for articles of particular interest of which some 100 are abstracted each month. Approximately 25 of these abstracts are published each month under the heading "Lithographic Abstracts" (Technical Briefs) in graphic arts publications.

Among those who attended the meeting were: George Schlegel, III, Schlegel Lithograph Corp., president of the LTF; Frank A. Myers, Copytizer Lithograph Corp., chairman, LTF Research Committee; and Wade E. Griswold, LTF Executive Director; and the following members of the Board of Directors: Harry E. Brinkman, Cincinnati Litho Co., A. A. Goes, Jr., Goes Lithograph Co., J. L. Kronenberg, S. D. Warren Company; and James G. Strobbridge, Strobbridge Lithograph Co. Members of the LTF Research Committee who were present include: Wm. Brauer, Brauer & Son; J. A. Butler, John H. Harland Co.; R. J. Butler, Sun Chemical Corp.; F. R. Cochran, Rand, McNally & Co.; A. W. Cornell, Forbes Lithograph Mfg. Co.; Dr. George Cramer, Sinclair & Valentine Co.; R. Epsen, Epsen Lithograph Co.; G. L. Erikson, Braden Sutphin Ink Co.; P. W. Felt, Brown & Bigelow; Dr. F. H. Frost, S. D. Warren Co.; A. Grupp, Meyercord Co.; R. C. Hohenthaler, Cramer Dry Plate Co.; N. A. Mack, Roberts & Porter; J. M. McMaster, Eastman Kodak Co.; E. H. Nunn, Crown-Zellerbach Corp.; L. W. Plummer, American Type Founders Corp.; A. W. Reitz, International Printing Ink Co.; John Ristine, Jr., R. R. Donnelley & Sons Co.; Robert E. Rossell, U. S. Engineer Research & Development Laboratories; C. A. Russ, Sinclair & Valentine Co.; B. L. Sites, Miehle Printing Press & Mfg. Co.; Wm. W. Winship, Brett Lithograph Co.; and Wm. H. Wood, Harris Seybold Co.★★



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## Zabel Brothers Co. Marks 65th Year With Extensive Expansion and Modernization

**Z**ABEL Brothers Co., Inc., one of Philadelphia's oldest lithographic firms, is now completing an extensive expansion and modernization program which has added new equipment and more space to the production facilities, and has accelerated the company's volume gains in the field of color lithography.

The plant at Fifth and Columbia

has been renovated from front office to shipping department through a program of improvement carried on for over two years. The recent purchase of an adjoining building provided the company with about 25 percent additional floor space, and now about 127,000 feet are used for all operations. With its two-shift operation of eleven offset presses, in-

cluding several two-colors, the firm now ranks with the largest in Philadelphia.

A modern reception room with wood paneled walls and fluorescent lighting greets the visitor, and this style is carried out through the office area. Files are built into the walls. The office, camera and platemaking sections are air conditioned.





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The Zabel plant now includes the more recently acquired building at left. Right photo shows part of the color correction section.

In the photographic department, a 40" overhead camera, equipped with a 44" circular screen, is supplemented by two other darkroom cameras, a 24" and a 31". Cameras, as well as platemaking equipment, are equipped with light integrators, for precise exposure control.

Further processing control is gained through the company's own filtering system for all water used.

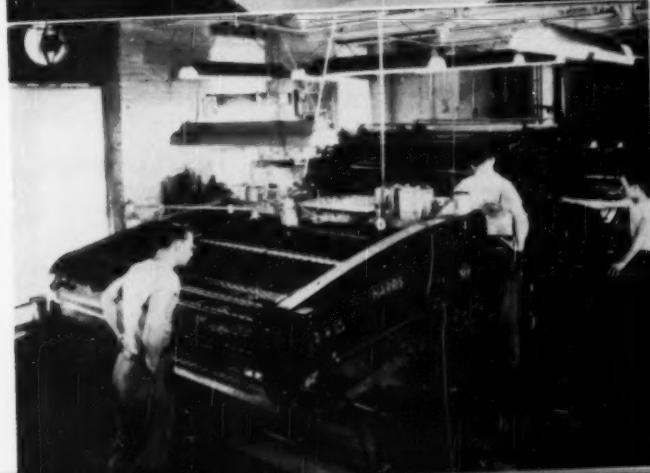
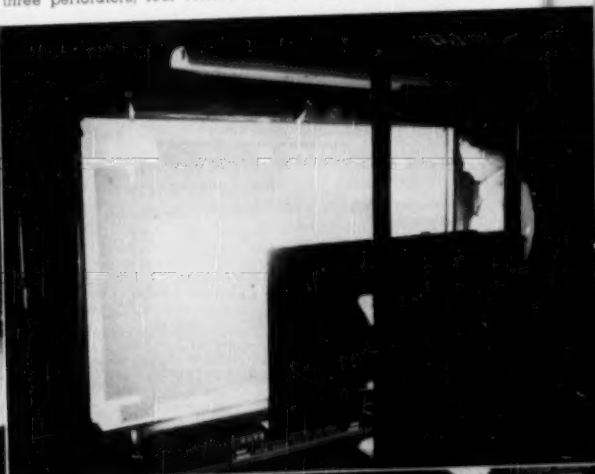
Twenty work tables, including latest model light tables, line-up tables and others, make up the large

stripping and make-up department. Several light booths for color correction artists complete this section. Two electric controlled photo-composing machines, a 45½ x 60" and a 50 x 69" facilitate platemaking for all

(Continued on Page 93)

George Sylvester works over new line-up table; Carl Dieterle operates large vacuum frame. Lower—Around new two-color press are (L. to R.) William Kuhl, James Robinson and Donald

Ross. Right, a battery of cutters, with Harry Weber in the foreground. The plant has a complete bindery, equipped with three perforators, four folders and two eyeletting machines.





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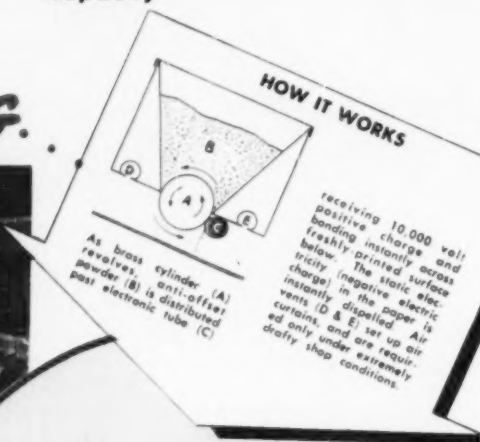
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# TECHNICAL SECTION

## Pre-Testing Paper for Ink Absorption A Move Toward Standardization

By Dr. Leo Cahn

Consolidated Lithographing Corporation  
Brooklyn, N. Y.

AMONG the paper tests that a lithographic laboratory has to conduct is the determination of the rate of ink absorption. Wide variations can be observed particularly on coated papers. Advance information as to the rate of absorption of ink is very important to the ink room. The wrong consistency of the ink may cause chalking on highly absorbent papers or offsetting on less absorbent surfaces with poor drying as the general result.

Since there are no A.S.T.M. or TAPPI tests to draw upon, the paper manufacturer and the lithographer are left to their own devices. Some laboratories have worked out very satisfactory methods of their own—but there are no standards to go by, no common method or terminology that could be used by all to characterize a paper of such and such an absorption quality.

During recent years, the so-called K & N\* test has found considerable

acceptance as a quick and practical test of the rate of ink absorption on coated papers. The test is very aptly described in the recent technical bulletin #8 of the Lithographic Technical Foundation by Prof. Robert F. Reed. It consists, in short, of a smear test, using a non-drying ink with an oil soluble dye. This ink, when applied in a heavy layer on the coated side of the paper for two minutes, leaves a stain after its removal. The depth of the stain permits comparison with other papers of known ink absorption and lithographing qualities.

The evaluation of the K & N ink stain presents certain difficulties. There is no basic scale against which these stains can be checked. Any classification of the stains according to their lightness or darkness is entirely arbitrary. Standard stains preserved from older samples are useless because the stain changes gradually. It takes on a slightly different hue and depth after two hours and more

so after eight hours and continues to change as time passes. The surface pH value of the paper influences the appearance of the stain, especially substantially alkaline brush enamels, so the stains very often assume different colors and are therefore very difficult to judge.

The object of this article is to report our attempt to standardize these tests, to express the values of such K & N stains in numerical terms. The method used is simple. It involves readings with a densitometer. We used the Photovolt reflection densitometer, but any suitable similar instrument can be used. The procedure was as follows:

The first step is the exposure of the paper itself. We let the light beam strike any clean part of the 8" x 8" paper sample. When the shutter of the instrument is closed, the pointer of the Micro-Amperemeter approaches the zero position of density scale. By turning a knob, the pointer is adjusted exactly to the zero point of the scale;

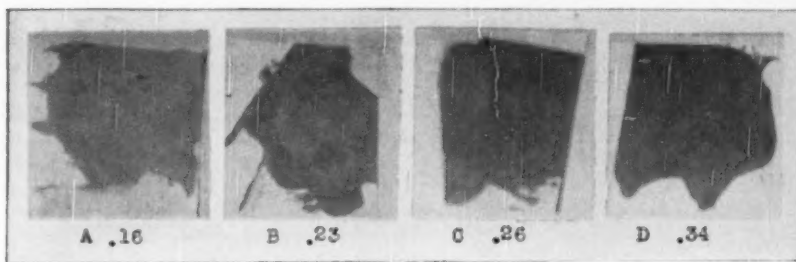


Figure 1



Figure 2

thus compensating for the intrinsic reflectance of the paper itself. Now we shift the test paper until the K & N stain is exposed to the light beam and by closing the shutter we get a reading on the density scale. The latter is made up of logarithmic values corresponding with the reciprocal value of the reflection and therefore presents itself in the form of decimal fractions. Forthwith our readings of the K & N stains are expressed in such decimal fractions. In Figure I we have examples of four different stains, created on four different coated papers. The density values are  $A = 0.16$   $B = 0.23$   $C = 0.26$   $D = 0.34$  increasing with the depth of the stain. It is noticeable that stains B and C are not much different and will cause the observer a certain amount of difficulty to classify but the densitometer shows a clear distinction.

The reading of the K & N stain with the densitometer should be carried out within two hours after the stain has been produced. An investigation of stains with the G. E. recording spectrophotometer showed that for the first two hours stain value remains fairly constant.

The reproducibility of the readings is satisfactory. The same part of the stain will always give the same densitometer reading. However, the stains are not entirely uniform and taking into account variations within the stain, we may say that the accuracy of this method can be described as about  $\pm 10$  percent.

This figure can be reduced by taking a number of density readings within the same stain and recording the average. A good paper will show very little fluctuation between the readings of the same stain. The wider the differences of the readings of the same stains are, the more irregular the coated surface will appear. This may lead to serious conditions and is discussed in a paragraph below. At least four consecutive sheets of the same skid should be tested in order to account for multiple sheeting.

The evaluation for printing and lithographing performance of the stain tested paper requires a good deal of experience in testing and subsequent

## A Method of EVALUATING RESOLUTION Characteristics of a Process Lens

By C. A. Hunting

R. R. Donnelley & Sons Co., Chicago\*

### PART I

**P**ROBABLY the most common method of checking a lens in engraving or lithographic plants, where no special provision is made for this work, is to cover the maximum available size copyboard of a process camera with halftone proofs having a dot and line structure in black and color fairly well over the copyboard area. Then the image formed by the lens is examined at various reproduction ratios and angles off the optical axis. This visual observation may be supplemented by the

making of test exposures through the various color separation filters, which may be examined for "sharpness" and register. The lens is then left to find its ultimate limitations on the production line.

The Bureau of Standards, Fig. 5, furnishes specially prepared resolution targets consisting of groups of uniformly spaced black-and-white lines representing a range of ruling frequencies varying progressively by

\*Paper presented at the meeting of the Technical Association of Lithographic Industry, Congress Hotel, Chicago, April 12, 1949.

observations of the tested paper on the press. However, from months of experimenting, it appears certain that the papers showing medium stain of say between .15 and .28 would generally give best results. Papers that show readings outside of these limits require some manipulation with inks in order to prevent chalking or off-setting. A paper with a high reading or high absorption figure would need an ink with some heavy bodied varnish or an ink containing synthetic resins which have a tendency to "stay on top." On the other hand a paper with a low reading or low rate of ink absorption would require a softer, more penetrating ink with high tinctorial strength.

One very interesting and valuable side feature of the stain method is the possible discovery of the spottily coated paper. The stain of Figure II would not give a good densitometer reading because light and dark areas easily noticeable are far too different to give a practical reading. However, this pattern of light and dark areas noticeable after the stain was produced indicated areas of poor ink absorption intermingled with areas of normal ink absorption. In

this specific case, the entire sheet was speckled in this way and a solid lithographed on this paper was badly mottled. It can be seen that the staining method will be useful in discovering such inferior papers and help us to eliminate them.

On mill-tinted paper the test has to be modified by using a colored filter in order to eliminate the effect of the tint. For instance when we tested ivory-coated paper, we had a sample analyzed with the G. E. Spectrophotometer. The ivory coated paper had a spectrophotometric curve which in the wavelength between 600 and 700 millimicrons was practically identical with a white paper used for comparison. Therefore we were able to carry out the normal density readings by simply confining ourselves to the red waveband, using a red filter.

This present attempt to launch a standardization drive for the rate of ink absorption on coated paper is prompted by the conviction that such a move, however primitive it may be, is apt to set in motion enough critical forces to bring some real good thoughts out into the open for the benefit of the paper maker and paper consumer alike. ★★

the square root of two. These targets mounted over the area under investigation and projected through the lens then make possible the visual and photographic examination of the images and a numerical evaluation of resolution.

Manufacturers of lenses and associated optical equipment make ample provision for a flat target wall with means for aligning the optical axis of the lens perpendicular to this wall at any desired distance. It is usually impossible properly to isolate such a special optical testing space in an establishment where the testing of lenses is a somewhat infrequent occurrence.

A method is outlined here which we have employed to evaluate lenses of new design, and which it was therefore desirable to investigate under the widest possible conditions of controlled variation, and to record the results more precisely and comprehensively than could be done with equipment and accessories previously described.

Figure 1 represents a master target constructed as a basis for the actual resolution target. This consists of a minimum of three uniformly spaced and tapered black or opaque lines separated by two tapered white or transparent lines. These rulings converge from a limit of  $R$  lines per length at one end of the wedge to a limit of  $2R$  lines per unit length at the other end. These end and limit

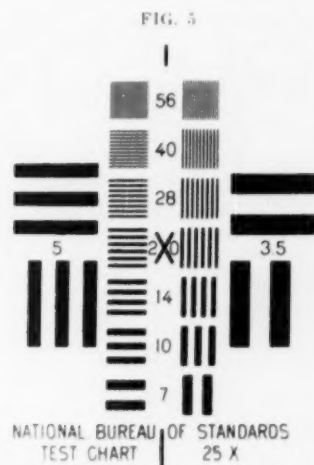
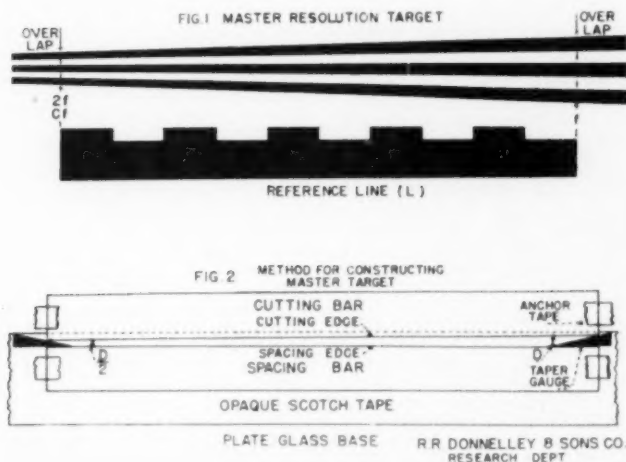
rulings are read at the two positions along the wedge which are opposite the ends of the reference line of Length  $L$ .

This reference line may be serrated along one edge into subdivisions representing  $1/10$  of its length so as to facilitate the more precise evaluation of any fraction of the distance along its edge. However, the essential requirement is that the reference line be sufficiently thick so that it will remain distinctly open and visible as a reference line when the converging wedge lines may have lost their resolution. This must happen at some point when they are undergoing subsequent reduction in size when being employed as resolution targets. It is also desirable that there be some extension of the converging lines beyond both ends of the reference line. These extensions will represent overlap in subsequent progressive reduction in length of the master wedge to make the working target, thus making it slightly easier to evaluate and verify the point of lost resolution when it occurs on or near the extremity of the lines.

Figure 2 illustrates a quick, convenient and accurate method of constructing the master target wedge. On a sheet of plate glass of suitable size to accommodate the length of the master target lay a strip of opaque scotch tape, preferably of 2-inch width. If only a narrower width

is available, the desirable precaution is to be sure in laying out multiple strips, that any subsequent lines to be cut to form the edges of the converging target rulings do not coincide with the edges of the tape strips. Then anchor the cutting bar, the top bar in our illustration, in the position desired for establishing the top edge of the first line in the target. The cutting edge of this bar need not be a perfectly ground straight edge, as any slight variation from straightness will simply repeat consistently throughout the subsequent spacing and cutting operations. It is important, however, that this cutting edge, when placed in contact along the edge of the second or spacing bar of equal length, does not form a rocker contact.

After the first edge is cut by running a razor blade closely along the base of the cutting edge in its first position, set a pair of calibrated taper gauges or a pair of fixed gauges of widths made to give the proper convergence when used as spacers at the two ends of the cutting edge between the cutting edge and the spacing edge of the second or spacing bar. These gauges will, of course, be made or set so that the spacing at the ends of the overlap sections of the tapered wedges will result in the desired spacings in the wedges just opposite at the two ends of the predetermined reference line.



With the spacing edge of the spacing bar thus set with the gauges to yield, as in the illustration, a distance of  $D$  at one end of the reference bar and a distance of  $\frac{D}{2}$  at the other end, anchor the spacing bar, remove the gauges, release the cutting bar and move it up so that the cutting edge makes contact with the anchored spacing bar. The cutting bar is then re-anchored with tape, the spacing bar released and moved out of the way, and the second cut made with a razor along the base of the cutting edge. By repeating this opera-

tion, the necessary edges forming the final master target are thus all made by cutting to the one edge of the cutting bar. It is then a simple matter to remove the surplus scotch tape beyond the overlap limits, and strip out alternate wedge sectors, leaving the desired arrangement of converging black-and-white, or opaque and transparent lines. (Note: This also makes a neat job for a stripper using developed-out stripping film or wet plate membrane instead of scotch tape.)

(Part II will conclude this paper in February—Ed.)

Also described are color correction masks which are an integral part of multi-layer color materials such as Ektacolor, Kodacolor, and German Agfacolor Negative Positive material.

**Half-tone Diaphragm Control.** Richard P. Newick. *Official Gazette* 628, No. 5, November, 1949. U. S. Patent No. 2, 489, 804. In a half tone exposure device, a variable aperture type diaphragm, a primary operating member, and operative connections between the latter and the diaphragm including a lost motion connection operative over a part of the movement only of the operating member, whereby the diaphragm remains at a fixed aperture for a time, and including an adjustable member operative to cause initiation of the lost motion relation between diaphragm and primary operating member at a predetermined part of movement of the device, variable at will.

**\*Photo Typesetting Machine.** Anon. *Printing Equipment Engineer*. 79, No. 2, November, 1949. This is a description of the laboratory demonstration of the Lithomat Photo-Typesetting machine for I.T.C.A. convention members, Oct., 1949. The Lithomat system consists of four basic parts: (1) An electric Typewriter, (2) A "memory" unit, (3) A counter-justifier which is an electrical computing and control system, and (4) An automatic photographic unit which photographs the letter characters one by one on sensitized film. Details concerning the background and present state of the machine are given.

**\*Half-tone Screens for Lithography.** J. S. Mertle. *National Lithographer*. 56, No. 11, November, 1949. In this article Mr. Mertle describes the irregular dot arrangement of the Hem-sath screen and the double screen arrangement of Richter, each process being intended to increase the high-lighting effect. The Dargavel wavy line screen which was introduced for newspaper reproduction of portraits, and the Jacobi screen which in addition to the regular crossline ruling had a secondary set of finer rulings also are described.

#### Planographic Printing Processes

**\*Something New Under the Sun—Gelb Lamp.** Anon. *The Photoengravers Bulletin*. XXXIX, No. 4, November, 1949. *Modern Lithography*, 17, No. 11, Nov. 1949. In the new Gelb vacuum printing frame a mercury tube light source travels from edge to edge across the flat, thereby furnishing even intensity from a band of substantially parallel light rays. The light source is of high intensity and low cost, requiring only 8 amperes. Exposure time is approximately 1/2 that of conventional 35 amp. carbon arcs. Two other features are the con-

## TECHNICAL BRIEFS

### From Current Literature in the Graphic Arts

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#### Photography Color Correction

**\*Subtractive Color Reproduction. The approximate Reproduction of Selected Colors.** W. L. Brewer, W. T. Hanson and C. A. Horton. *Journal of the Optical Society of America*. 39, No. 11, November, 1949. Proper use of masking in subtractive color photography is dependent upon a means of establishing the color reproduction equations which give the values of the mask gammas. Nule has shown that such equations can be obtained from an extension of the principles of duplicating while MacAdam has done so by treating the subtractive system in terms of an equivalent addition system. Marriage has demonstrated that a specification of the requirements necessary for the exact reproduction of any four selected colors can be used to derive a unique set of equations. In the present paper, it is shown that Marriage's method can be extended to include colors

in any number greater than four, provided "approximate reproduction" rather than "exact reproduction" is taken as the criterion. The resulting equations will depend upon the manner in which the criterion of approximate reproduction is applied, as well as upon the particular selection of colors to be reproduced. While these aspects of the problem have not been investigated, results have been obtained which appear to be reasonable. The method may be applied to any assumed types of sensitivity distributions and forms of color reproduction equations.

#### \*Better Masks for Kodachrome.

Frank Preucil. *National Lithographer* 56, No. 11, November, 1949. The use of highlight masks for tone correction on Kodachrome is described. The highlight masks can be made separately or included in special emulsions used for the color correction mask.



trol which simultaneously locks the cover glass and starts the vacuum, and the Gelb Self-Pressurized blanket which holds the flat to the plate without danger of slipping.

**\*New Offset Printing Plates.** *Der Polygraph*, October, 1949 (20 of Oct.) (In German) Aligraphy Ltd. have developed an anodized aluminum litho plate. The original plate is given a fine grain before anodizing. The plate may be counter etched with nitric or sulfuric acid. Plate making is by the usual methods. Deep etching is accomplished with saturated iron perchloride solution. Broad claims are made for performance of the plate.

**\*Light-Sensitive Piperine Compositions.** Alexander Murray. *United States Patent Number* 2, 475, 980. (April 15, 1946). This invention relates to a new light sensitive material of monomeric composition that is converted by light into a resinous polymer. The monomeric material is piperine to which an accelerator such as benzoyl peroxide can be added. *Official Gazette* 624, No. 2, July, 1949.

**Lithographic Printing Surfaces.** Ralph Stanley Colt. *British Journal of Photography*, XCVI, No. 4661, September, 16, 1949. A method of preparing lithographic printing plates by hydrolyzing the surface of cellulose acetate, sensitizing with a bichromate, treating the exposed layer with zinc chloride for positive to positive image, or with hypochlorite for a negative to positive image. The remaining hydrolyzed acetate forms the hydrophilic areas.

#### **Paper and Ink**

**Methods of an Apparatus For Drying Paint, Ink or The Like on Articles.** *British Patent Number* 617, 556. The method is designed particularly, but not exclusively, for drying paint or ink on metal plates so as to minimize the risk of damage during stoving. *Printing Abstracts* 4, No. 8, August, 1949, P. 381.

**Apparatus For Effecting the Hardening of Deposits of Ink and Like Compositions.** *British Patent Number* 617, 996. The deleterious effect of sulphur dichloride in paper when used for accelerating the drying of inks is overcome by providing means for regulating the time of contact of the dichloride vapour with the printed surface and reducing or eliminating contact of the vapour with the other surface of the paper. The apparatus also provides for dissipating the excess of sulphur dichloride left in association with the printed paper after treatment. *Printing Abstracts* 4, No. 8, August, 1949, P. 383.

**Eliminator For Static Electric Charges.** *Research Association and British Rubber Manufacture, Summary of Current Literature, British*

*Patent, Number, 618, 577.* Static charges are particularly liable to build up on a printing machine where a moving web contacts a rubber blanket. To eliminate this charge the web is brought into contact with two surfaces which neutralize each other. *Printing Abstracts* 4, No. 8, August, 1949, P. 401.

**\*Static.** Robert F. Reed. *Modern Lithography* 17, No. 10, October, 1949. Static electricity can cause erratic misregister that is sometimes blamed on the press feeder and register mechanisms. The causes of static and conditions which aggravate it are discussed. Methods of static elimination include: humidification, and the use of gas flames, grounding devices, high tension electric neutralizers, and radioactive ionizers.

**\*Paper Stretch.** *American Pressman* 59, No. 11, October, 1949. A discussion of the causes and methods of compensation for various types of paper stretch encountered in the lithographic shop. Methods for printing longer or shorter, by changing packing of the blanket and plate are described, as well as correction for wavy or tight edged sheets. To correct for bearer to bearer stretch, the plate must be removed and cut into strips which are re-set for correct register; otherwise the plate must be remade. Many of the stretch problems could be eliminated by proper pre-conditioning of the paper.

**\*Machine Coating-Its Place and Future.** B. R. Newcomb. *Southern Pulp and Paper Manufacturer* 12, No. 10A, October, 1949, P. 34.

**\*How Paper Affects Press Efficiency.** A. B. Woodruff. *American Printer* 129, No. 4, October, 1949, P. 46. A number of factors affect the ease with which a press can handle the paper. They are as follows; the characteristics of paper, the importance of the thickness of the stock, condition of the stock, the speed of the press and the conditions in the pressroom.

**\*Take the Heat Off.** Paul J. Thoma. *American Ink Maker*, 27, No. 11, November, 1949. Pages 25-26. A discussion of the problems involved in the production of *Time* and *Life* magazines. The use of heat-set inks made *Life* possible. Nearly one million dollars per year is lost by *Time* Inc., in downtime caused by paper breaks on the presses. The ink dryers degrade the tearing strength of the paper by virtue of high temperatures and many paper breaks occur at this point. If quick setting inks which need no heat were developed, it would save the printer much time and money. Limitations of ink are determined by the press, the rollers, the paper, and the cost of the ink.

**\*Comparative Dispersion of Pigments in Various Vehicles.** J. M. Ber-

stein. *American Ink Maker* 27, No. 11, November, 1949, Pages, 29-33. A study of the degree of fineness of grind of printing ink pigments, measured by different methods. Five different pigments were dispersed in each of 5 vehicles by means of the ink mill and the fineness of grind was determined after each run through the mill by means of the Fineness of Grind Gage and photomicrographs. Comparisons were made of the different pigments and different vehicles. Steam set inks tend to pick up moisture during grinding and the particle size increases. Electron photographs confirm the data from the Fineness of Grind Gage.

**\*Discuss Driers and Ink Gages.** Anon. *American Ink Maker* 27, No. 11, November, 1949 Page. 55. Abstracts of three papers presented at the meeting of the Paint, Varnish, and Plastics division of the American Chemical Society. 1. The Roller Type Applicator Fineness of Grind Gage and its Application to the Evaluation of 3 Roll Mill Printing Ink Pigment Dispersion. An equation is empirically derived relating the number of runs through an ink mill with the specific numerical index of the ink (a measure of the fineness of grind.) 2. Amine Derivatives that Prevent Drying Loss On Aging. 3. Determination of the Specific Gravity of Pigments. A weighed amount of pigment is thoroughly dispersed with a known amount of vehicle, and the specific gravity of the ink determined. Knowing the specific gravity of the vehicle the specific gravity of the pigment may be calculated.

**\*Ink Tack Studies Reported.** Anon. *American Ink Maker*, 27, No. 11, November, 1949, Pages, 57. An abstract of a paper given by Andries Voet and Claude F. Geffen on "Fundamentals of Tack in Printing Inks." Studies were made on the energy of the film separation showing the relation of this energy to the nature of the adhering surfaces, rate of separation, plastic viscosity, and temperature. It is shown that film separation does not occur by plastic flow, and the fundamental mechanism of the ink film rupture is discussed.

**\*Handling Oversize Sheets on Offset Presses.** Anon. *American Pressman* 59, No. 12, November, 1949. Pages 30-31. While oversized sheets should not be printed on an offset press, occasions arise where the pressman is forced to do so. Special care in cleaning the press is necessary, especially on the ends of the rollers, cylinders, etc. Method of obtaining register is given for oversize sheets. The cause and remedy for tail end curl is given for the oversize sheets. Enough space should be allowed for trimming the star and skeleton wheel marks.

**Determining Mileage Characteristics of Ink.** W. F. Talbot and Rolf



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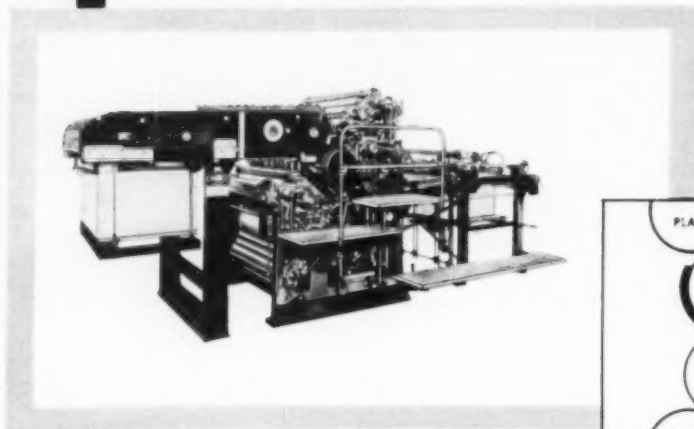
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simultaneously either in  
same or different colors.

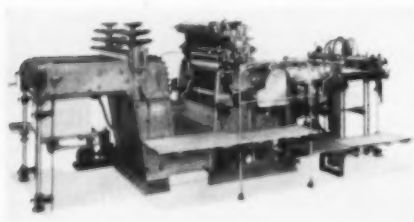
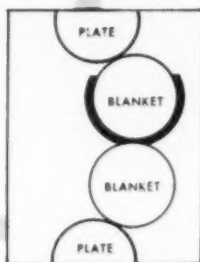
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38" x 53½"

Maximum Printing  
Surface  
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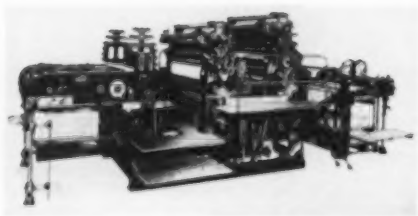
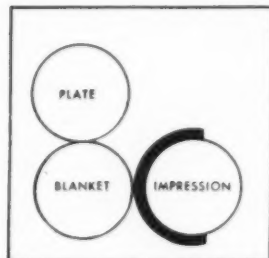
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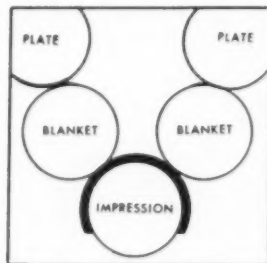


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Buchdahl. *Chemical Abstracts* 43, No. 21, November, 1949. A radioactive substance is incorporated in a non-radioactive printing ink, in quantities insufficient to change the printing characteristics of the ink. Prints are made with the ink upon a surface and the radioactivity of the imprinted surface is measured.

**Printing Properties and Plasticity Diagrams of Typographic Inks.** D. Tollenaar. *Proc. Intern. Rheological Congr. (Holland, 1948)* 1949, 11-26-4, 6 plates; discussion III-69-70 (A1656/1206). *Printing Abstracts* 4, No. 10, October, 1949, Page 183.

### Lithography—General

**Printer's Blanket.** Lewis R. Liles and Edgar W. Chapman. *U.S. Patent*, No. 2, 489, 791, October 16, 1944. *Official Gazette* 628, No. 5, November 29, 1949. A printer's blanket uniform in flexibility and highly stretch-resistant in a direction of the blanket for resisting objectionable deformation in the use thereof, said blanket comprising a resilient impression layer of ink-retainable material having the physical properties of soft vulcanized rubber resistant to the chemical action of ink materials and solvents, and a flexible backing integral with said impression layer, said backing comprising stretch resistant material including glass in filamentary elements twisted together as yarns and woven in fabric form to provide tension members extending along the blanket in said direction thereof.

**\*Handbuch Der Reproduktionstechnik. Band III Photolithographie, Offsetreproduktion, Lichtdruck.** Book. 211 pages. (In German) \$2.30. 1949. Polygraph Verlag GMBH, Frankfurt am Main. As the title states this is a handbook of reproduction techniques. It covers the principal methods of printing plate production in lithography and colotype together with plate-making equipment, presses and paper. The various processes are described in general rather than with detailed instructions, and does not attempt to evaluate. It is of interest primarily to lithographers who are interested in comparing German and American techniques.

**\*New Offset Proof Press.** Anon. *The Photoengravers Bulletin*, XXXIX No. 4, November, 1949. Page 30. An announcement of the first Vandercook offset proof press, designed to "produce proofs which closely approximate the final printed results on production presses." Important features enumerated are accurate water and ink controls, stepless speed control, instantly adjustable impression. Maximum plate size is 25 1/2" x 36".

**\*Reproduction Proofing Techniques Combed at ITCA's Boston Meeting Held in Boston.** *Printing Equipment*

*Engineer*, 79, No. 2, November, 1949. This article is a report of the Reproduction Proof Symposium held at the ITCA convention in Boston, October, 1949. G. S. Hammer, Jr. of Forbes Litho. Mfg. Co. described the faults with type reproduction, illustrating his discussion with slides some of which are reproduced in this article. Clyde S. Hunter of McLaurin-Jones discussed "Paper for Reproduction Proofing," describing stocks to suit varying conditions. Harold H. Cowley, I.P.I. discussed inks for proofing. "Care of Proofing Rollers" was discussed by Aaron A. Hobart of Wild and Stevens. O. F. Duensing of Vandercook Research Inc. took up the procedures and problems involved in making transparent proofs.

**\*Keys to Cost Control.** Frank R. Somers. *Printing Magazine*, 73, No. 11, November, 1949. The "Management Cost Control Manual" was written for printers and lithographers who desire to install a cost finding system, also for the benefit of the members of the industry who have been operating cost finding systems for many years. The methods outlined in this manual are methods which have been in practical use and have proven and demonstrated their worth; consequently, through the medium of this manual, the NAPL cost committee is passing on the benefit of the accounting and cost experience of some of the best managed plants in the industry.

**\*The Web Offset Press, Does it Fit Into My Plant?** Pat Kirkpatrick. *National Lithographer* 56, No. 11, November, 1949.

**\*Keep an Eye on Your Rollers.** Anon. *Canadian Printer and Publisher*, 58, November, 1949, No. 11. The quality and length of service given by rollers depend upon the care given them. Too many rollers are treated as a necessary evil to be given as little attention as possible. They are carelessly handled and improperly cleaned. Mentioned are some of the highlights of an article on roller maintenance in *American Pressman*. They are as follows: A good way to wash rollers, How dried ink forms on rollers, Rollers should be well dried, and Rollers should be inspected for small ink skins.

**\*Treatment of Rubber Offset Blankets.** H. Meyer. *Druckwerbe*, 1949, 2 (14), 222-3 (July 16) (In German) Rubber blankets should be stored flat with rubber surface to rubber surface. A mixture of 1 1/2 benzine, 1 1/2 petrol and 1 1/2 99% alcohol (free from methyl alcohol) is recommended for washing; hints are given on its application. The blankets should then be dusted with talcum and flowers of sulphur. Hints are also given on attaching and using the blankets. *Printing Abstracts*, 4, No. 10, October, 1949, P. 443.

**\*Wanted: Trained Technicians.** Charles F. King. *Inland Printer* 124, No. 1, P. 41-42, October, 1949. A description of the problems that a novice technician would encounter in the lithographic industry. The scope and limits of the field of work of a control technician are outlined, and suggestions made to the neophyte chemist or technician in the lithographic industry.

**\*Stretching Zinc Plates.** *Modern Lithographer and Offset Printer*, XLV, No. 9, September, 1949, P. 176-178 (2 pages). A new zinc stretching machine is the "Renorex" made by the Linmac (Engineers) Ltd., of Wembley and marketed by C. W. Sanford Ltd. of 8 Salisbury Court, Fleet Street, London, E. C. 4. It weighs about 14 cwt., occupies a floor space of under 6 sq. ft. and will take plates up to a maximum size of 57 by 52 inches. This machine will, it is claimed by its makers, stretch a zinc plate at any angle in any direction, diagonally, at one end, or at both ends, locally or over the whole of the plate. The procedure of stretching a zinc plate is discussed.

**\*A Practical Microscope For Lithographers.** Paul W. Dorst. *Modern Lithography*, 17, No. 10, October, 1949, P. 49-50-51-52-71 (5 pages). The practical importance of a microscope in lithographic trouble shooting is extremely great since it gives information about the surfaces of plates, coatings, blankets, paper and inked images. Important depths can be calculated knowing the angle of illumination and measuring the length of shadows.

**\*New Photo-Typesetting System.** *Modern Lithography* 17, No. 10, October, 1949, PP. 65-145-147. A new photo-typesetting system using a type-writer actuated mechanism to produce positive or negatives of justified type composition, without the use of metal type, was unveiled in Cambridge, Mass., September 15. Developed by the newly formed Graphic Arts Research Foundation Inc. The device will be manufactured by the Lithomat Corp.

**\*The 10 Most Common Troubles on Small Offset Presses.** Ted Jarosik, (2 parts) *American Printer* 129, No. 3, September, 1949 P. 41-42-44 (3 pages) and *American Printer* 129, No. 4, October, 1949, P. 43-44. An accurate record of trouble calls on small offset presses in the territory around Detroit for 15 months during 1948 and 1949. Ninety seven calls were made and the troubles involved were classified as follows: Poor printing quality-20; all types of streaks-16; register troubles-16; Misc. mechanical troubles-16; feeding troubles-13; Scum and dirty printing-11; Plate trouble (mechanical)-5. In part II Mr.

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Jarosik discusses in detail the cause of register troubles, feeding troubles, scum or dirty printing and plate troubles. It is mentioned that at least one half of the service calls could have been eliminated by the application of knowledge already in the plant. The order of frequency of the 10 most common troubles was as follows: 1. Improper ink roller settings. 2. Improper blanket and plate height. 3. Carelessness and dirty equipment. 4. Inadequate lubrication. 5. Improper setting of feeders. 6. Improper setting of guides. 7. Mechanisms out of adjustment. 8. Worn or damaged parts. 9. Bad plates or chemicals. 10. Miscellaneous minor troubles of singular occurrence.

#### Graphic Arts—General

\*Method For Printing on Thermoplastic Sheetlike Material. Marc. A. Chavannes. *United States Patent Number*, 2, 486, 259. *Official Gazette* 627, No. 4, October, 1949. P. 1191. A method for decorating sheet-like resinous material comprising the steps of printing on said material with an ink, said ink comprising resin having a lower molecular weight and lower softening temperature than the resin of said material, and a liquid vehicle which will not attack said material, drying said ink, and heating said material to a temperature sufficiently high to render said ink tacky and to bond said ink to said material.

Allyl Starch—A New Material. Highly Compatible Resin That Gives New Brilliance and Performance to Inks, Coatings and Finishes, Is Now Available For Package Testing. M. H. Baker. *Modern Packaging*, -1949, 22 (9) 131-3 (May). Allyl starch is a cream-colored solid which is readily soluble in alcohols, ketones, esters, halogenated hydrocarbons, nitro-paraffins, high-flash naphthas, ethers and in aromatic hydrocarbons to which some hydrogen bond-forming solvent, such as isobutanol, has been added.

\*British Standards. Anon. *British Journal of Photography*. XCVI, No. 4669, November, 1949. (11th. of Nov.) Five years of research have now produced a "British Standard" set of four-color and three-color letterpress inks—to supersede a "Trade" Standard which has been in use since 1929. The British Standard lays down the characteristics with regards to hue, color, strength, and light-fastness which must be met.

\*How Color Combinations Affect Legibility. Albert W. Gray. *American Printer* 129, No. 5, November, 1949, P. 36-37. The legibility of printing involves two factors, color and brightness, and each plays an almost identical role. A rule evolved at the University of Minnesota in relation of legibility to color is the "greater the brightness difference between symbol and background, the greater the

legibility of the print." The article lists the rating of "color combinations and their visual effects."

\*Air Conditioning. Anon. *Modern Lithography* 17, No. 11, November, 1949. Part I and II. A discussion of the problems to be considered in the planning of air conditioning equipment for a lithographic plant. The weather for the extreme days is disregarded since planning for the latter may involve costly installations. The availability and cost of water, heat, and power must be considered. The various sections of the plant and their respective air conditioning problems

are important. The heat and moisture changes of equipment and personnel within the building must be taken into account. A table is given for the maximum amount of moisture given off by the various sizes of lithograph presses.

\*Fluorescent Lamps for Examining Color Proofs. E. A. Lindsay. *American Ink Maker* 27, No. 11, November, 1949. The application of fluorescent lamps for examining color proofs is discussed. Suitable color can be given to the lamps by wrapping in colored gelatin filters. ★★

## New Equipment Displayed at Meeting of Silk Screen Industry in Cleveland

Reported by J. I. Biegeleisen

THE hundreds of small silk screen shops scattered throughout the world recently have formed a world wide organization, the Silk Screen Process Printing Association, International. Its first annual meeting was held in Cleveland, November 6-9.

The meeting included an exhibition of silk screen printing produced in America, Mexico, Cuba, etc., and also an industrial show where the latest developments in supplies and equipment were displayed. To provide an idea of what is being done in the silk screen field, the following highlights of the show are given.

*The McCormick Silk Screen Printer.* This is a British compact automatic silk screen press that can do up to 1200 impressions an hour. It can print on any conceivable type of material; paper, cardboard, metal, wood, cloth, vinyl, or any type of plastic, thin or thick, flexible or rigid. The maximum printing area for that model is 20"x30". The maximum thickness of stock is 1/2".

Feeding is manual, but the operation of the squeegee is automatic. Operating the machine requires dexterity in setting the sheet in the registry guides before the squeegee gets to work and lifting the sheet when the print is complete. There are micrometer adjustments for getting close register. The machine is

easy to make ready and easy to clean. It will work with photographic or hand-cut stencils. Squeegee pressure and thickness of paint are controllable so that it is a matter of choice whether the operator wants a heavy deposit of paint or a minimum film.

*The General Press.* There was another new press, an American-made machine produced by the General Research Supply Co. This one has most of the above advantages plus a few of its own. Sheet size of the General Press is 22" x 30". Larger models can be made to order to accommodate a 30" x 44" or a 38" x 52" size sheet. Speed of printing: 1500 impressions per hour. It is run by a 1 1/2 H.P. motor and will take up 110" x 67" in floor space.

The General Press, unlike the McCormick model, cannot print on anything heavier than 80 point board, and the stock must offer a certain flexibility so that it can be carried partly around a contact cylinder. It is ideal for printing labels, paper and cardboard, cartons and signs. It will handle metal too, if it is flexible enough to yield somewhat to the curvature of the cylinder. It too, like the McCormick Press can print with any type of stencil, hand-cut or photographic. Due to the automatic control of squeegee pressure the machine produces work that is unusually

(Continued on Page 91)



# JUST AS EASY TO—



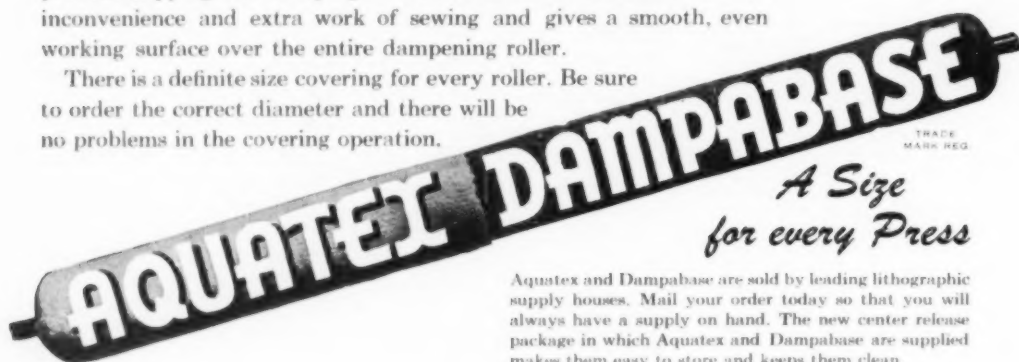
## HANDLE THE BIG ONES AS IT IS THE LITTLE ONES

Large dampening rollers present no problems—you can cover them with the same ease as the smaller rollers, regardless of the method used. Aquatex and Dampabase are made in sizes to fit any press.

The "two-way stretch" feature of Aquatex and Dampabase enables the pressman to apply them to any size dampening roller with ease.

Aquatex and Dampabase, knitted fabrics, possess resilience. They have that "hugging" action so necessary when on the roller to prevent slipping and creeping. The seamless feature eliminates the inconvenience and extra work of sewing and gives a smooth, even working surface over the entire dampening roller.

There is a definite size covering for every roller. Be sure to order the correct diameter and there will be no problems in the covering operation.



Aquatex and Dampabase are sold by leading lithographic supply houses. Mail your order today so that you will always have a supply on hand. The new center release package in which Aquatex and Dampabase are supplied makes them easy to store and keeps them clean.

*They're Better  
because  
They're Seamless*

### GODFREY ROLLER COMPANY

*Roller Makers for 85 Years*

211-21 NORTH CAMAC STREET

PHILADELPHIA 7, PA.

### McLean Retires From GPO

John A. McLean, former superintendent of platemaking and more recently assistant production manager at the Government Printing Office Washington, received his certificate of retirement from Public Printer John J. Deviny on November 30. Mr. McLean had been in the G.P.O. since 1909. He has been active in the improvement and development of platemaking methods and frequently has appeared before graphic arts organizations as a speaker on this subject.

Mr. McLean is a prominent member and former official of the International Association of Printing House Craftsmen and an active participant in the research program of the Printing Industry of America. After a long vacation in New England and the South Mr. McLean intends to continue his activities in the industry, probably as a consultant.

The Public Printer announced the appointment of Harry D. Merold, director of planning service, to Mr. McLean's position as assistant production manager. Mr. Merold is a former G.P.O. apprentice who has filled a number of posts in the office and in other government agencies. Other appointments made by Mr. Deviny include the designation of Emmett I. Hill as director of planning service and Daniel H. Campbell as director of purchases.

### Vanderbogat Joins Smith Co.

Clifford L. Vanderbogat, former vice president of the Niagara Lithograph Co., Buffalo, N. Y., has been elected president, general manager and a director of the John P. Smith Printing Co., Rochester. He will take his new post Feb. 1.

The John P. Smith Printing Co. has been in business 76 years, and specializes in letterpress work. It has 180 employees.

Mr. Vanderbogat has been with

Niagara Lithograph for 31 years. He has been in charge of sales development and has been a director and vice president. He is a director of the Point of Purchase Advertising Institute, New York City, and served as president for three terms until last May.

### New Chicago Firm

Coburn & Co., new Chicago litho firm, opened for business Dec. 15 at 310 W. Washington St., with Richard W. Coburn as president. Operations started with two 17 x 22 offset presses and platemaking equipment, but camera work will for the present be done outside, Mr. Coburn said. A general run of advertising materials will be produced, along with insurance company printing.

Mr. Coburn was at one time offset production manager for R. R. Donnelley & Sons Co. He was later director of purchases of printing and paper for a large insurance company.

### Anti-Trust Suit Settled

A consent decree entered early in December in U. S. District Court at Washington ended a government anti-trust suit against the Standard Register Co. of Dayton, Ohio. In the action the firm agreed to desist from certain business practices the government had contended were monopolistic. The company maintained, however, that it had ceased most of the alleged objectionable practices before the suit was filed three years ago.

### N. Y. Forum Jan. 13-14

The technical forum for lithographers in the New York area, sponsored by the Metropolitan Lithographers Assn., and conducted by the Lithographic Technical Foundation, was to be held in New York January 13 and 14. The sessions were to be at the New York Trade School, with the research staff of the LTF staging a series of talks and demonstrations.

### James H. Sweeney Dies

James H. Sweeney, western manager at Chicago for Lanston Monotype Machine Co., of Philadelphia, died Dec. 11 at Henrotin Hospital in Chicago after a brief illness. Mr. Sweeney, who was 70 years of age, had been with Lanston for 42 years. Funeral services at Holy Name Cathedral on Dec. 14 were attended by a large delegation of friends with whom he had been associated in his long years of service to the midwestern graphic arts trade. He is survived by two daughters, a brother and two grandchildren.

### Progress Gets Big Presses

Continuing its expansion program, the Progress Lithographing Co., Reading, Ohio, a Cincinnati suburb, has recently received a new Miehle 52 x 76" two-color offset press. Another Miehle of the same size, but a four-color model, also was scheduled for delivery at the plant, according to Charles H. Klein, president.

A new 48-inch circular screen also has been installed on a 40 by 48 overhead camera in the Progress plant.

### Consolidated To Build Plant

Consolidated Lithographing Corp., Brooklyn, in December purchased a 46 acre tract of land at the southwest corner of Glen Cove Road and Westbury Rd., Carle Place, L. I., N. Y. General plans are to build a modern lithographing plant on 10 acres of the site during the next two years, a spokesman at the company said, although specific plans are not completed.

### Incorporates in New York

Technicrome, Inc., lithographing firm, recently was incorporated in New York State by Mary Devery, Hoboken, N. J., Kay Bodell, New York, and Millie Piccione, Bronx.

# ANSCO ANNOUNCES

## the New REPROLITH ORTHO TYPE B!

Exhaustive Laboratory and Field Tests Prove This New Film  
Ideal for FASTER . . . MORE ECONOMICAL Production



- **SHORTER EXPOSURE TIME**

Important when *speed* is a major factor for rush-type of work; or *cutting costs* for work which is figured close.

- **HIGH ORTHOCHROMATIC SENSITIVITY**

Higher sensitivity and use of filters permit better copies which would otherwise require handwork on the negatives.

- **MAXIMUM LATITUDE IN DEVELOPMENT**

A vital requirement in helping to reduce makeovers.

- **FINE RESOLVING POWER**

Ability to register fine detail proved higher than with average film.

- **CLARITY IN WHITE AREAS**

Stains and discolorations eliminated.

- **FINE DOT ETCHING QUALITIES**

Dot edges come up pin-point sharp in shadows.

- **STEEP GRADATION**

Contact your  
**Ansko Representative, today!**

**Ansko, Binghamton, New York.** A Division of  
General Aniline & Film Corporation. "*From  
Research to Reality*".

SPECIFY *Ansko* REPROLITH ORTHO TYPE B

### Hankel Buys Offset Plant

Richard T. Hankel, president of Hankel Printing Co., Chicago letterpress concern, celebrated his 60th birthday anniversary by the purchase last month of the physical assets of a Chicago lithographing company. This new acquisition will continue under its own name, Mr. Hankel announced, but will be operated as Plant No. 2 of the Hankel company. Under terms of the purchase contract he is obligated not to reveal the name of the litho house, he explained.

The proprietor of the litho firm will remain as head of the sales promotion department of the new Hankel division, he stated, and operations are to continue without change, except that additional equipment, including a large size 1 or 2-color offset press, is to be purchased.

Hankel Printing Co. was established by George Hankel in 1889, the natal year of his son, Richard, the present chief executive. During the presidential terms of Theodore Roosevelt and Howard A. Taft the company handled extensive printing contracts for the War Department and other government agencies and the founder became known at that time as "Public Printer No. 2."

Richard Hankel became associated with his father in the business in 1914.

### Rayner Buys Chicago Building

Rayner Lithographing Co. recently purchased a 62,000 foot building at 47th and California where its operations are to be carried on. It is at present located in two buildings at Lake and Hoyne. The building is a new one, built in 1949.

### Ideal Roller Honors Employees

Ideal Roller & Mfg. Co. added five employees to its Twenty Year Service Club last month. In Chicago watches were presented to Sam Frith, grinding dept., Ed Shafter, inspection, and Wm. F. Graner, stock, and at the Long Island City, N. Y. plant recipients of watches were Max Zeck and Antonio Talenti. Presentation to the Chicagoans was made at Ideal's annual employees' Christmas party, Dec. 17 at the Keyman's Club. Pres.

H. M. Love and Vice President E. B. Davis were hosts at the Chicago affair, which included a dinner, entertainment, and a dance.

### Harris Advances Loelgren



C. A. Loelgren (above) former manager of the Harris-Saybold Chicago office, has been appointed manager of the company's western district. Ren R. Perry, general sales manager, announced. In his new post Mr. Loelgren will direct sales in 13 north central and western states. Former manager of the district was Mr. Perry who last summer became general sales manager under Harry A. Porter, vice president in charge of sales. Headquarters of the western district are in the Chicago offices and showrooms at 555 W. Washington Blvd.

### Poster Contest for Exposition

A nation-wide poster competition promoting the Sixth Educational Graphic Arts Exposition to be held at International Amphitheatre, Chicago, Sept. 11-23, will be conducted under the chairmanship of Dr. R. Hunter Middleton, A. E. Giegengack, president and general manager of the exposition has announced.

Mr. Giegengack has made arrangements with the Society of Typographic Arts to sponsor the competition.

Dr. Middleton who is associated with the Ludlow Typograph Company, is one of the founders and a former president of the Chicago Society of Typographic Arts.

First prize will be \$500 cash; second prize, \$250; third prize, \$100. Literature will be ready with all details concerning the competition by Feb. 1.

### Childcraft Volumes Lithographed

The use of lithography in book production was demonstrated in a

recently issued 14-volume collection of childhood art and literature, published by the educational division of Field Enterprises, Inc., Chicago, under the title "Childcraft."

Volumes 1, 2, 3 and 7 of the set were produced entirely by offset, this work being done by Newman-Rudolph Lithographing Co., Chicago. The balance of the set was by letterpress. Included in the four volumes are some 1,000 illustrations in full color.

The 14 volumes include 3,300 pages. First run was for 30,000 sets. Further runs are to be made "several times a year."

### Lithographer Injured in Crash

Frank Mazur, 20, described as a "lithographer," suffered a crushed chest and other injuries in an auto accident in that city, Dec. 17. A friend riding with him was killed, and a third man in the car sustained skull and leg fractures when the car skidded and crashed. Newspapers played up the accident as one of eleven fatal mishaps all occurring in a brief period that day. Mr. Mazur it was reported, will be confined to a hospital for six months.

### Firm Offers Ansco Line

The complete line of Ansco graphic arts film and photographic materials is now being stocked by the National Steel and Copper Plate Co. in the East and Midwest. The firm's offices are at 653 Tenth Ave., New York, and at 700 S. Clinton St., Chicago. The company, now 49 years old, carries a line of lithographic deep etch and surface plate chemicals, and other offset supplies.

### Uarco, Inc. Re-elects Officers

Directors of Uarco, Inc., Chicago producers of loose leaf business forms, recently reelected Walter R. Barker as president and Chas. Passmore as secretary-treasurer. Also elected were three new vice presidents, G. L. Barker, R. A. Ferguson and J. J. Kral, managers, respectively of the eastern, central and western divisions of the company.

### Says Metal Type is Best

Although the Mergenthaler Linotype Co., has a photo-typesetting machine under wraps at present, the company believes that type casting by present methods is still the best way. This was stated in the company's annual report, issued in December. President Martin M. Reed of the company claimed that his company's own photo-typesetting machine is "better than any now in operation," but that it is problematical whether the machine will ever be offered to the

trade. He said the most serious deficiency in the new machines is the lack of a satisfactory process for putting the film image on printing plates.

### Retires From Ink Assn.

David H. Sloane retired at the end of the year as secretary of the National Assn. of Printing Ink Makers, New York, after over 31 years with the association. Herbert B. Livesey, Jr., who has been assistant secretary for a year, is the new secretary.

### Soderstrom Speaks; Assn. Elects

A bright future for the lithography business was forecast at the December meeting of the Printing Industries Assn. of Western New York in Hotel Markeen, Buffalo. The speaker was Walter E. Soderstrom, executive vice president of the National Assn. of Photo-Lithographers, who stressed the pressing need for increased training of personnel in the lithographic field.

I. Lewis Alexander of Manhardt-Alexander, Inc., was re-elected president; Kenneth L. Koessler of Greater Buffalo Press was re-named vice president; Stephen F. Wylegala of Broadway Press was re-elected treasurer; Victor K. Besig of Besig & Company, Inc. was elected secretary to succeed James Foster who resigned this position during the past year.

It was announced that the association was to hold its next meeting January 16th in conjunction with Printing Week. Guest speaker was to be John Doesburg, Printing Industry of America.

### Keller Has Blotter Campaign

A series of 12 blotters promoting the company's creative printing and lithographing services has just been completed by Wm. J. Keller, Inc., Buffalo. W. J. Watson, vice president, reports. One blotter will be mailed each month during 1950. Each one features a historic scene from Buffalo's history, and the final one shows the Keller plant as it was many years ago and as it is now.

### Wichita Co. Buys Building

Acme Lithographers, Inc., Wichita, Kan., recently purchased the building at 513 S. St. Francis, that city. The building, of brick construction, provides 4,000 square feet of space, and will house the company's plant and office. The plant was being moved last month, according to Ed. Opperman, manager.

### Adds Offset Department

Atwater Press, Inc., New York, recently added an offset department, a straight cutter and a die-cutter.

When you want ink to dry **FASTER**

DOYLE SHEET DRYER  
on a Harris offset

USE  
**DOYLE INFRARED**  
Sheet Dryers

DOYLE SHEET  
Dryer on a Miehle  
Vertical

Experienced pressmen know that radiant heat speeds up ink-setting, cuts down offsetting, aids in the control of static. It's the concentrated high temperature radiant heat from Doyle Sheet Dryers, the result of Doyle exclusive design, that gives them their efficiency.

Whether you operate cylinder, platen, rotary, offset, gravure, newspaper or specialty presses, also ruling or coating machines or folders, Doyle Sheet Dryers will help you solve your problems. Write for complete information.

**THE J. E. DOYLE COMPANY**  
Manufacturers also of Doyle Vacuum Sheet Cleaners  
1230 WILSON STREET CLEVELAND 19, OHIO



### AIGA Exhibit Opens Feb. 6

The jury for the 1950 Printing for Commerce Exhibition of the American Institute of Graphic Arts has announced that Earnest Elmo Calkins, retired advertising man, will be a member of the jury that selects the best examples of printing and printing design for the American Institute of Graphic Art's Exhibition of Printing for Commerce which will open at the Architectural League, 115 East 40th St., New York City, on February 6, 1950. Following a three weeks showing there the exhibition will be shown throughout the United States. The 1949 Printing for Commerce Exhibition was shown in Memphis, Tennessee; Akron, Ohio; Kansas City, Missouri; Milwaukee, Wisconsin; Denver, Colorado; Chicago, Illinois; St. Paul, Minnesota; Worcester, Massachusetts.

The other members of the Jury are: Dr. David Bryce, director of advertising and literature, Lederle Laboratories; Monroe Wheeler, director of exhibitions and publications, The Museum of Modern Art; Lester Douglas, director of art and printing, *Nation's Business*; Bradbury Thompson, art director, *Mademoiselle*; E. McKnight Kauffer, designer and artist; and Harry A. Groesbeck, Jr., The Beck Engraving Co.

The response to the call for entries was good and material has been received from all parts of the country, the AIGA reports. This year the show will be larger.

### N. Y. Adv. Ban Off; Form Assn.

Lithographers, and other producers of displays and point of sale advertising for liquor won their round in a fight to keep a new ruling from going into effect which would have made such advertising illegal. The New York State Liquor Authority decided to withdraw its proposed regulations which restricted drastically the use of point of purchase advertising in retail liquor outlets. The new action broadened somewhat the scope of permitted advertising.

The battle against the proposed regulations was carried by a number of lithographic and advertising associations.



### New IPI Plant in Production

The International Printing Ink Div. of Interchemical Corp. has begun full scale printing ink production in its new 2½ million dollar plant (above) in Elizabeth, N. J. R. W. Smith, IPI president, reports complete transfer of all ink making equipment to Elizabeth from IPI's former factory in Brooklyn, N. Y. The shift from old to new location was made step by step, color by color. The IPI Elizabeth plant has more than four acres of floor space for ink making, laboratory and office facilities. The 12½ acre grounds provide for outdoor storage and future expansion. Access to railroads and major highways is a feature of the location.

Another result of the campaign was the formation of the New York State Liquor Advertising League, which will cooperate with the State Liquor Authority in maintaining rules and standards governing point of purchase advertising in retail liquor outlets. This was announced by John M. Palmer, president of Point of Purchase Advertising Institute, who was designated by the state body to head the new group's organization. The POPAI is located at 16 E. 43 St., New York.

### Oscar Heyman Dies

Oscar Heyman, 74, president of the Consolidated Cork Co., Brooklyn, and former chairman of the board of Consolidated Lithographing Corp., same city, died December 9 at his home in New Rochelle, N. Y. He had been with the cork firm for 15 years.

### New Firms in New York

New businesses recently listed in New York include Atlas Offset & Printing (Arthur Weyuker), 305 Broadway; and Artco Lithograph Co., (Arthur Miller), 59 Wooster St.

IPI planned the new building to include every worthwhile new development. Single story construction applies throughout the plant, except for the varnish section, where kettles are three stories high. It is built of brick, concrete and steel.

Complete research facilities are combined with ink making in the Elizabeth plant. IPI's technical staff and all laboratory equipment were moved to Elizabeth from former research headquarters in New York City. The completion of the plant follows closely the addition of new IPI ink making and service facilities in Battle Creek, Mich., Chicago, Philadelphia, Atlanta, Memphis, Louisville, and Los Angeles.

### More Women See Displays

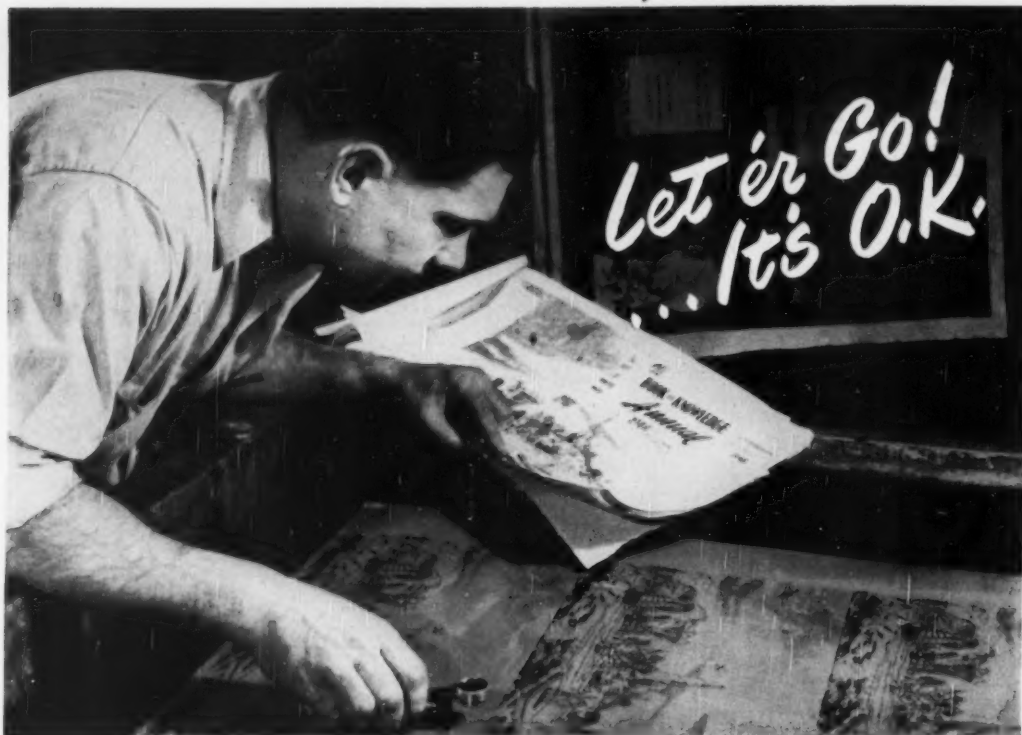
Seventy percent of the audience of window displays is composed of women, while 30 percent of the total is men, according to a recent nationwide survey conducted by New York University for the National Assn. of Display Industries. Among both men and women over 90 per cent were classed as "lookers" or "readers." Every person interviewed could identify photographs of current window displays.

### Choose Miss Reingold

Einson-Freeman Co., Long Island City, announced in December that Pat Burrage had been chosen "Miss Reingold, 1950" in a contest for the title among several photographers' models. Over 7,000,000 votes were cast, the company said. The winner will appear on displays of the Liebmann Brewing Company.

### N. Y. Negotiations Open

Negotiations in New York between the Metropolitan Lithographers Assn. and the Amalgamated Lithographers of America, were opened at the year's end, to effect an agreement for 1950. The present contract expires Jan. 31.



*The final proving and inspection assures your customers  
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For many years, Merck has been producing chemicals for the *specific needs* of the graphic arts. Merck experience, added to your experience, means better results.

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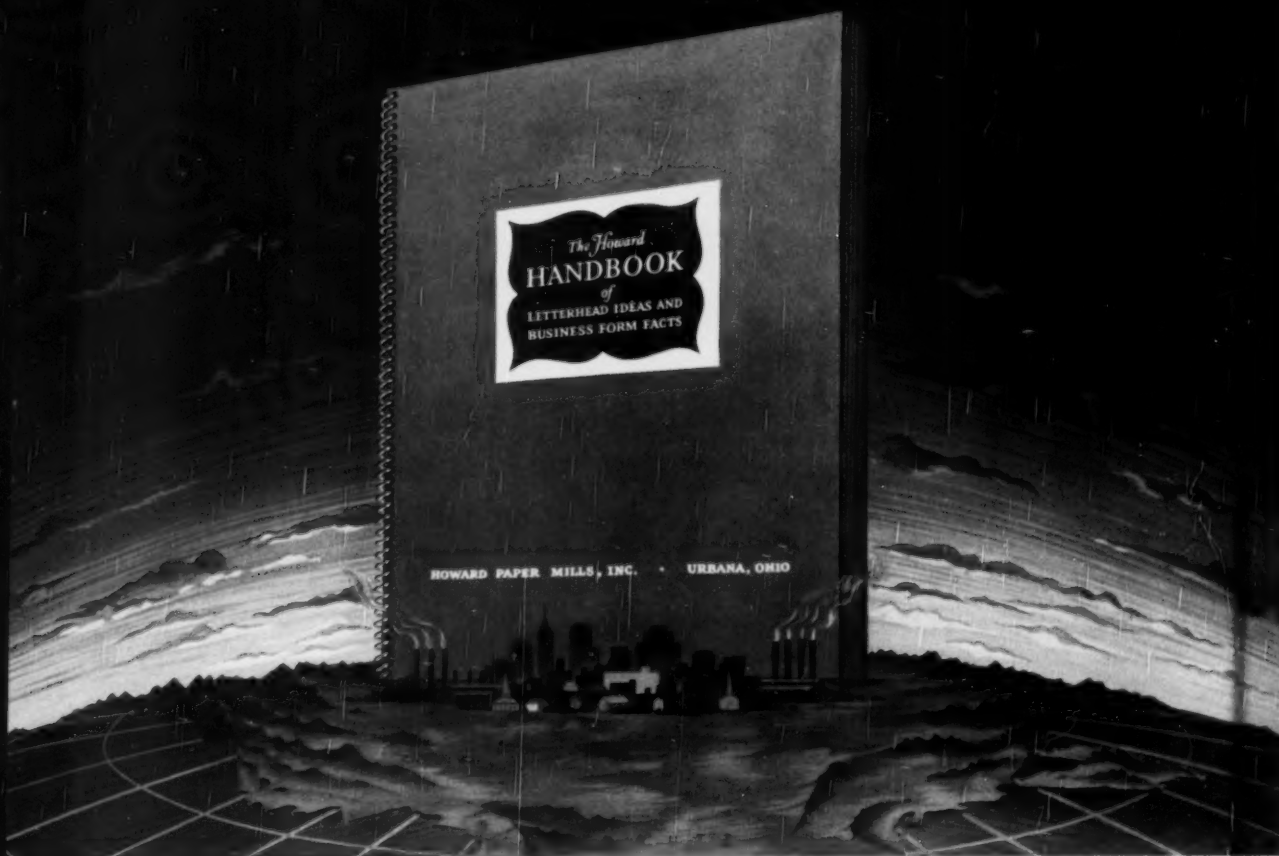


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WE ADMIT IT. This book was published to advertise HOWARD BOND. It started out as paper promotion—and ended up, as one man put it, "The most compact encyclopedia on business forms I've ever seen."

That comment mentions only half

of the book—the section devoted to enormously valuable "tricks-of-the-trade" in building effective business forms systems. The other half is concerned with letterheads and their design, with full-size samples that may give you many usable notions.

As we say, this book is free. Don't discount its value because of that. It contains a wealth of information you'll put to work. (And if it sells you on the merits of HOWARD BOND—that's all to the good, both for you and for us.)

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Please send at once "The Howard Handbook of Letterhead Ideas and Business Form Facts." (Attach coupon to your letterhead)

01264

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## Advertising is Selling when it appears on **Maxwell Offset**

Let us show you how MAXWELL OFFSET can help create the desire for good printing. Send us your letterhead and we'll mail you samples of the 8 distinctive finishes, 7 weights and 4 practical colors.

Advertising is the stuff that dreams are made on—and the stuff that changes dreams into purchases too. Your customers are looking to you to put this principle to work.

That's why you need to know about MAXWELL OFFSET. Its printing and handling qualities—carefully controlled sizing, unusual strength, perfect folding qualities, absence of linting, picking, fuzzing and stretching—sure, that's what you want in a printing paper. But

the important thing is this: use MAXWELL OFFSET and you can count on the absolute uniformity of these qualities. It works the same way every time. With MAXWELL OFFSET, you can do your unqualified best on all jobs—and they show it. With MAXWELL OFFSET, your profit-margin grows with less down-time for readjustment. For these reasons—and because your work is your own best advertisement—recommend MAXWELL OFFSET.

HOWARD PAPER MILLS, INC. • MAXWELL PAPER COMPANY DIVISION • FRANKLIN, OHIO

#### Phila. Printing Week Planned

A full program of varied events has been planned for the observation in Philadelphia of National Printing Week, January 16 to January 22, with members of the printing industry and graphic arts associations participating.

The Litho Club of Philadelphia, the Printing Industries of Philadelphia and the Franklin Institute are collaborating in sponsorship of an opening dinner meeting, planned for Monday, January 16 at the institute. More than 350 persons were expected to attend the affair. For Litho Club members, this affair will constitute a regular monthly meeting.

Victor Keppler, nationally known color photographer, was to be the principal speaker.

Other events included a memorial trip to the grave of Benjamin Franklin in downtown Philadelphia; a Poor Richard Club banquet at the Bellevue-Stratford Hotel; open house at co-operating printing plants in Philadelphia and surrounding area; a special meeting of the Craftsmen at the Poor Richard Club; and the closing affair will be a luncheon Friday at the Bellevue-Stratford Hotel, given by the Printing Industries of Philadelphia.


Educational Lectures on printing and related subjects will be given in public, parochial and private schools in the Philadelphia area during Printing Week.


#### To Exhibit GA Supplies

An experiment in displaying graphic arts supplies and equipment is being conducted in Philadelphia in January by the Printing Institute, a school which is training about 300 men in various phases of the printing industry. Samuel M. Burt, director of the school, has announced plans for a permanent exhibit, which will occupy 2000 square feet of space on the ground floor of the school building at 2206 Chestnut Street.

The display of supplies and equipment will be from national as well as local firms.

ELIMINATE TROUBLES CAUSED  
BY DRY AIR AND STATIC





HUMIDIFYING SYSTEM

**REGARDLESS** of the type of humidification you need — spot, booster or complete — the Walton System will supply it at lower operating costs, in fact, **THE LOWEST POSSIBLE COSTS.** Walton factory assembled self-contained units require little installation, time or expense.

**LET US** tell you how Walton Humidifiers will help prevent shrinkage and expansion of stock, aid in banishing choke-ups and uneven stock piling while improving register.

**For Complete Information ... Mail To-Day!**

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Irvington 11, N. J.

Please refer to ML 1-50

Kindly send us your latest Brochure on "Humidification for Printers, Lithographers and Binders."

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**OUR  
CONTRIBUTION  
TO THE  
BETTERMENT  
OF  
LITHOGRAPHY**

**SCRATCHPROOF  
DRYER NO. 3**

Prominent lithographers throughout the country have learned to appreciate Scratchproof Dryer No. 3 for its unique characteristics, for the economical and successful ways in which it has helped them with their drying requirements.

Results have proven Scratchproof Dryer No. 3 is the most practical dryer on the market today.

- ★ Quick drying without crystallization or chalking of ink.
- ★ Improves the lifting quality of inks, particularly on two and four color presses.
- ★ NON HARDENING of inks on distributing rollers.
- ★ Non drying of inks on press during long lapses of idle press time for unforeseen reasons, no washups during lunch hour.
- ★ Acts as a lubricant in the ink on the distributing rollers whose temperature rise tends to further dissolve SCRATCHPROOF DRIER No. 3, giving the ink a shorter fine binding.
- ★ Prevents too much emulsification or waterlogging of ink at high speeds.
- ★ Will not create after-tack in your pile, thereby eliminating summer heat and moisture difficulties.
- ★ Will not injure press rollers or rubber blankets, and will not discolor zinc or aluminum plates.
- ★ Has excellent suspension, body, and flow. Its non-settling qualities give ink necessary "slip" and tack for better distribution.
- ★ Will not cause any injurious effects if used in excess—in fact, this procedure is recommended in certain types of inks to improve their working qualities.
- ★ Ink mixed with SCRATCHPROOF DRIER No. 3 will remain tough and elastic indefinitely.

*Don't be satisfied with substitutes. For better lithography . . . try SCRATCHPROOF DRYER No. 3 . . . let your own test prove its benefits to you . . . judge by RESULTS. Send for your trial order today.*

**NEVER SOLD IN BULK. INSIST ON OUR LABEL FOR MAXIMUM PERFORMANCE.**

**NEW PHONE — — WATKINS 4-1074**

**EMPIRE SUPERFINE INK CO., INC.**

OFFICE:  
225 VARICK ST.  
NEW YORK 14, N. Y.

MANUFACTURER OF HIGH GRADE  
LITHOGRAPHIC **INKS** PRINTING  
DEEP ETCH CHEMICALS AND SUPPLIES

FACTORY:  
BROOKLYN  
NEW YORK

**MANUFACTURERS OF DAMPENING ROLLERS, FLANNELS AND MOLLETON COVERS**

#### Pittsburgh Assn. Elects

Walter J. Bauer, head of Caslon Press, Inc., was elected president of the Printing Industry of Pittsburgh, Inc., at the organization's annual election meeting recently held there. He succeeds John M. Baird, of Tarentum, Pa. Others elected to a one-year term of office in the organization include Weldon D. Smith, Republic Press, vice president; Ross M. Blair, Smith Brothers, Inc., secretary; and Francis A. Roney, Colonial Press, treasurer.

Robert H. Caffee retiring president, was named national director, and will represent the group at meetings with Printing Industry of America.

#### Republic Press Appoints

T. A. Dadisman has been appointed general manager of Security Banknote Co.'s Pittsburgh, Pa., division, the Republic Press. Mr. Dadisman has been sales manager of Republic Press since 1947. Prior to joining the Pittsburgh firm, he had been associated with Beck Engraving Co. and Cuneo Eastern Press, both of Philadelphia.

#### Otto Molz, Baltimore, Dies

Otto Molz, American Bank Stationery Co., Baltimore, died Dec. 2, following a brief illness. Mr. Molz had been a regular attendant at meetings of the Litho Club of Baltimore, and served as a director and officer of the club several years.

#### Conner Litho Adds Press

The Conner Lithograph Co., Detroit, has announced the addition of a Webendorfer 22 x 29 offset press to its pressroom which consists of one other 22 x 29 Webendorfer, and three 17 x 22's.

The firm also has a complete camera and platemaking department.

#### Joins Nekoosa-Edwards

Freeling M. Truesdale recently joined Nekoosa-Edwards Paper Co., Port Edwards, Wis. and will be engaged in technical service on Nekoosa and Nepco papers. He was formerly with the Marathon Corp., and Hammermill Paper Co.

*When offering a Bond  
for quality work...  
be Right with RISING*

*For Winning Forms  
BE AHEAD with RISING*

For forms of clean appearance, sharp printing, and good wearability—Rising Bond is the paper to choose. Ask your printer if he does not agree that the best paper for forms is

#### Rising Bond

- ✓ White and 5 colors
- ✓ 25% rag
- ✓ 4 weights
- ✓ Envelopes in six sizes
- ✓ Excellent printing surface for engraving, lithography, gravure or letterpress



WHEN YOU WANT TO KNOW... GO TO AN EXPERT!

## Rising Papers

ASK YOUR PRINTER... HE KNOWS PAPER!

Rising Paper Company, New Britain, Mass.

↑ The above advertisement appears in a long list of executive advertising and sales promotion magazines.

Every Rising consumer ad works to build more confidence in *your* judgment—*your* word on all factors that go into the business of delivering good printing. You are promoted as the expert.

Printers in the know always make their bond as good as their word, too. They know that Rising Bond is a good paper—works well in the shop, takes good sharp impression, and holds its looks and body through long handling in service.



## Rising Papers

PRINTING AND TECHNICAL

# GELB... the complete line of PHOTO-MECHANICAL EQUIPMENT



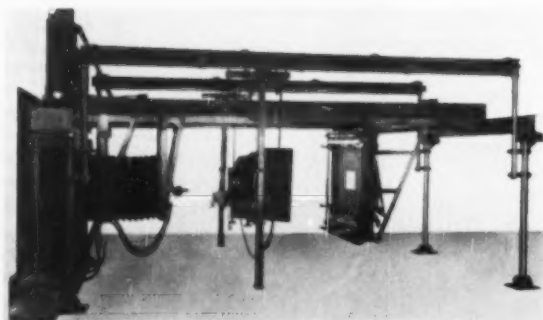
GELB TUBULAR TYPE  
VACUUM PRINTING FRAME



GELB DIRECT-DRIVE  
LITHO WHIRLER



GELB CARBON ARC PRINTING  
LAMP MODEL LI-125T



GELB OVERHEAD PRECISION PROCESS CAMERA



GELB DOUBLE-DECKER CAMERA  
LAMPS—MODEL L-125 DD

**f**ROM camera to inking-and-gumming table, Gelb equipment assures years and years of trouble-free service.

Precision-machined wherever precision must be maintained, sturdy beyond maximum requirements and designed for speedy and comfortable operation. Made in all standard sizes or to specifications.

In a Gelb-equipped shop, maintenance and repair dollars are saved—and operating time reduced.

Complete literature is available on request and all Gelb equipment may be seen and demonstrated by appointment. Please write or phone.

PRECISION PROCESS CAMERAS  
VERTICAL PRECISION TRANSPARENCY COLOR CAMERAS  
CARBON ARC LAMPS  
ETCHING AND CLEARING TABLES  
LAYOUT AND STRIPPING TABLES  
VACUUM PRINTING FRAMES  
TRUE FIDELITY VACUUM PRINTING FRAMES  
LITHO PLATE WHIRLERS  
INKING AND GUMMING TABLES  
LIGHT INTEGRATING EXPOSURE TIMERS



GELB TILT-TOP LAYOUT  
AND STRIPPING TABLE



GELB TRUE FIDELITY VACUUM  
PRINTING FRAME

## JOS. GELB COMPANY

356 WEST 40th STREET, NEW YORK 18, N. Y.

Telephone: BRyant 9-5071

#### Calif. Firm Expands

Peninsula Lithograph Co. has built an addition to the plant at 1025 Chestnut St., Redwood City, Calif., more than doubling the previous floor space. The firm, started since the end of the war by Ken Wallace, Arthur Inman, and Herbert Britton, specializes in labels and specialties. Just added to the pressroom is a new Ebco 22 x 34 which supplements the 22 x 28 and 17 x 22 Webendorfer already on hand. The firm maintains its own composing room and plate-making department.

#### Griffin Bros. Consolidate

Griffin Bros., Inc., San Francisco and Oakland typesetting firm, recently closed its Oakland plant and consolidated operations in the main plant at 394 Pacific Ave., San Francisco. Principal reason for the change, according to company president Wm. H. "Bud" Griffin, was to provide faster and more flexible service made possible by concentrating men and machinery in one place.

#### Seattle Firm Moves

The Western Printing Co. of Seattle, Washington, which recently bought out the Puget Lithograph Co., same city, has moved the entire litho department into a new building at 2300 5th Ave. A new Ebco single color 22 x 34 offset press has been purchased for the department by R. Torrance, president of the firm.

#### Farwest Issues Folder

A folder illustrating recent advertising material produced by the company was recently issued by Farwest Lithograph & Printing Co., Seattle. Titled "Farwest Photo News," the 8½ x 11" folder shows 12 recent jobs.

#### Pikes Peak Co. Incorporates

The Pikes Peak Lithographing Co., Colorado Springs, Colo., was incorporated in December by Mr. and Mrs. Edward H. Morast, principal stockholders, and Donald F. Davis, Raymond E. Roberts and Harold A. Lumsden. The company has been in operation for more than a year as the Peak Lithographing Co., and is now

producing the new offset picture magazine "Colorado Wonderland."

#### New Wine Packaging Label



Roma Wine Co., Fresno, Calif., is now putting out its wines by the glass, ready to place on the table when the cap lid closure is lifted off. The package is a wine or cocktail glass holding one serving of wine and has a tiny oval lithographed label in gold and red on which a miniature of the product's regular label is superimposed. The labels are lithographed by Lehmann Printing and Lithographing Co., San Francisco.

#### New Denver Firm

Jeppeson & Co., is the name of a new graphic arts firm recently established in a large plant at the Stapleton Airport, Denver, Colo. E. J. Jeppeson, president of the company, is one of the oldest pilots in point of service for the United Air Lines, and he has previously had the work of his firm done on a bid basis. The company specializes in travel maps, air manuals, airport and state air field maps, and maintains its own staff of artists and engineers. Just added to a battery of ATF Webendorfer offset presses is a new 22 x 34" Ebco offset press.

#### New Idaho Firm

Charles W. Joslyn and Ed. Johnston recently organized Joslyn and Johnston, Inc. at 1710 Main St., Boise, Idaho, to do lithographing and printing. Mr. Joslyn formerly was with Symis-York Co., printers, and Mr. Johnston was with Cline Advertising Service.

#### L. A. Firm Buys Property

The property at 1115-17 South Hope St., Los Angeles, was recently purchased by John D. Roche, lithographer.

#### Houston Firm Gets Press

The Carmax Corp., Houston, Tex., recently installed an ATF-

Webendorfer web offset press for the production of business forms. The press will take a maximum web width of 26", and prints from cylinders 17" in circumference. Each printing unit consists of two offset units, one numbering unit, and one rubber plate imprinting unit. The finishing units include a file hole punch, two cross perforators, one jump perforator, and a vertical perforator and slitter. The press operates at 12,000 cylinder revolutions per hour.

#### Texas Firm Enlarges

The Hill Printing and Stationery Co. of Waco, Texas, was to complete the moving of its letterpress and lithography departments into a new building at 1125 Washington Ave. by December 15th. The firm, one of the oldest in the city, is headed by president R. B. Goddard. About 5,000 feet of floor space have been added by the move and the enlarged pressroom will have a 22 x 34 Ebco offset press added to its previous battery of Harris offset presses.

#### Calif. Company Adds Intertype

The Rose Lithograph Co. of Modesto, Calif., has recently added a new Model C4 Intertype to its composing room. Al Rose is owner.

#### University Plant Gets Cutter

A Lawson 52" paper cutter recently was installed at the University of New Mexico printing plant, Albuquerque.

#### Deseret News Adds Press

The new plant of the Deseret News Press in Salt Lake City last month added an ATF Chief 17 x 22 offset press.

#### Made Western VP

Dee McConnell recently was elected vice president in charge of sales of Western Lithograph Co., Los Angeles

#### Utah Firm Adds Press

The Sea Gull Press in Salt Lake City has recently installed a 17" x 22" ATF Chief offset press.

# How to be thrifty in 1950

with Pitman 49er Litho Cote—the all weather  
plate coating—for trouble-free press runs

here's what **49er**

LITHO COAT DOES FOR YOU:

- \* Eliminates "scum" and "walk off".
- \* Saves money by ending costly press tie-ups.
- \* Gives more coatings per gallon.
- \* Makes better plates at all temperatures through scientifically controlled uniformity.
- \* Keeps plates going for long runs.



Start off 1950 by ending money-wasting tie-ups due to troublesome plate "scum" and "walk offs". Use Pitman 49er to overcome "scum" conditions caused by residual matter in the grain after development. Let 49er end delays and plate problems on even the longest runs.

Repeated tests under actual working conditions have proved that 49er gives more coatings per gallon than ordi-

nary solutions. Make your own convincing test right now.

49er is compounded under rigid control to assure utmost uniformity and ease of handling. Ready for instant use right out of the container, 49er is a time-saver in your plate making operations.

Place your order for 49er Litho Cote today with Harold M. Pitman Company, manufacturer, or any of its exclusive distributors.

Harold M.



Used by America's leading lithographers.

**Pitman** Company

Chicago, Illinois, 51st Avenue and 33rd Street

North Bergen, New Jersey, 1110 13th Street

Dallas 1, Texas, 2814 Canton Street

Cleveland 15, Ohio, 3501 W. 140th Street

Distributors in Toronto - Boston - San Francisco



### Research Group in Rochester

New processes, some still in the experimental stage, were revealed by officials of the Eastman Kodak Company early in December to members of the Graphic Arts Research and Engineering Council, during a three-day meeting in Rochester. Dr. C. E. Kenneth Mees, vice president and research head at Eastman, welcomed the council members and told them of new developments in the company's laboratories. These included improvements in commercial color photography printing processes, photoengraving printing advancements and speedier methods in lithography. Later the processes were demonstrated in the laboratories.

One process not included in the demonstrations, although spoken of beforehand, was an experimental Eastman method for lithographic printing directly from the film exposed in the camera. Dr. Mees emphasized the experimental nature of this development.

Among the projects described and demonstrated were developments in color photography which make it much easier to make paper prints. This development, called the Kodak Flexichrome Process, does away with many complicated technical procedures previously needed to produce color prints.

An experimental procedure shown at Eastman consisted of making a printing plate from cellulose acetate in a few minutes. This will enable lithographic work to be done much faster than is now possible, it was explained.

Following the laboratory tour, the council members made a similar tour of Rochester Institute of Technology publishing and printing department. There Byron Culver, head of the department, outlined the program of the school and the connection between the Eastman work and RIT's research.

### Apprentices Study Color

A series of lectures on the physics and psychology of color was conducted by Herbert P. Paschel,

lithographic consultant, for apprentices of Local 1, Amalgamated Lithographers of America, recently. The apprentices meet once a month.

### Lawson Appoints Renshaw VP



John T. Renshaw (above) has been appointed vice president of E. P. Lawson Co., New York, manufacturers of cutters and bindery equipment. David W. Schulkind, president, announced. Mr. Renshaw will be in charge of the recently opened Lawson midwestern branch in Chicago. Mr. Schulkind commented that Mr. Renshaw's background as manager of the Philadelphia office and as representative in the field for several years, qualify him for the new position. Before joining the Lawson Co., he was with the Miller Printing Machinery Co.

### Minn. Assn. Has 40 Firms

The Twin Cities Employing Printers Assn., formally organized last October, is entering the New Year with a membership of more than 40 firms in Minneapolis and St. Paul. Employed by these firms are 80 per cent of the graphic arts workers of the two cities, according to the association. Sole purpose of the organization, according to Paul Sturm, 201 Pillsbury Building, Minneapolis, secretary-treasurer and labor relations negotiator, is to handle labor relations between unions and employing printers of the Twin Cities on a local area basis.

Presidents and secretaries of the pressmen, lithographers, typographers and bookbinders unions were called into conference with an employers' committee before formal organization took place.

### Benedict Joins R. & P.

Larry A. Benedict, formerly eastern representative of the photographic division of the Di Noc Co., Cleveland, has joined the sales staff of Roberts & Porter, Inc., litho suppliers, in New York according to an announcement by Harry Grandt, vice president in charge of sales. Mr. Benedict, who is a graduate of Rider College, Trenton, N. J., served in the U. S. Navy, and prior to his connection with the Di Noc Co., was assistant to the manager of graphic arts sales of the Ansco Division of General Aniline and Film Corporation.

### Amer. Direct Mail Appoints

As a result of its program of expansion, American Direct Mail Co., New York, announced the appointment of Philip J. Jacoby as vice-president of the organization. Mr. Jacoby's former position as sales manager will be filled by John J. Davala, formerly advertising and sales promotion manager of Eutectic Welding Alloys Corp.

### Hoyt B. Evans Dies

Hoyt B. Evans, 61, president and founder of the Photo Reproduction Corp., New York lithographing firm, and also head of Eastern Printing Corp., that city, died Nov. 6 following treatment in a New York hospital. Mr. Evans was also president of Traffic Publishing Co., publishers of the Freight Traffic Red Book and other publications.

### United Litho Adds Press

United Lithographing Corp., New York, recently added a 22x34" EBCo offset press to its facilities, Edward Usoskin, president, announced. This is the second EBCo installed by the firm since its recent move to new quarters at 599 Eleventh Ave.

### 750 At Philadelphia Party

The Philadelphia Club of Printing House Craftsmen's Christmas Party, Dec. 20, was declared a success, when more than 750 turned out. It was held at the Bellevue-Stratford Hotel.

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# 1950

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## Another Year of Progress for Metal Decorating

The Wagner Organization looks forward to another year devoted to the progress and development of the metal decorating industry. For more than half a century Wagner engineering and manufacturing facilities have been geared to the needs of metal decorators.

During this period metal decorating has moved steadily forward despite depressions, booms, elections, wars. We like to think that Wagner improvements and developments in metal decorating equipment have played a part in helping the industry better serve established markets and expand into new ones. Your willingness to work with Wagner engineers and readiness to accept new developments have been of major importance in developing more efficient equipment. We ask your continued cooperation.

Throughout the New Year **CALL ON WAGNER** to solve your equipment needs. Whether a complete line or a single unit is involved, your problem will have the complete attention of an organization long familiar with metal decorating requirements, an organization eager to serve and promote the interests of metal decorating.

The Wagner line includes: **ROTARY-AIR OVENS**  
**AUTOMATIC STRIPPERS** • **SPOT COATERS**  
**VARNISHING MACHINES** • **AUTOMATIC FEEDERS**  
**ROLLER REVOLVING MACHINES** • **OFFSET PROV-**  
**ING PRESSES** • **LABORATORY COATERS** • and  
**OTHER SPECIALIZED EQUIPMENT**



### WAGNER LITHO MACHINERY DIVISION

NATIONAL-STANDARD COMPANY

Harborside Terminal  
Unit 3

74 Exchange Place  
Jersey City, N. J.



#### Spaulding-Moss Honors Co. Man

A. H. Spaulding, (left) secretary-treasurer of the Spaulding-Moss Co., Boston, receives a gold wrist watch from Philip B. Terry, vice president and general manager of the company, to mark Mr. Spaulding's 35 years with the company, at a party and banquet, December 10, 1949. Mr. Spaulding's father founded the firm. The award was made on behalf of the Spaulding-Moss Employees' Association. Service award pins were given to several employees for records ranging from five to 25 years.

#### Rochester Honors Old Timers

Three men were honored for long service to the Rochester (N. Y.) Lithographing Company recently at the annual banquet of the company's Old Timers Club. Top man in length of service is W. Henry Hammerle, who started work with the company 50 years ago. Also honored were George A. Frank and Lawrence R. Gerew. Both have been with the firm for more than 25 years.

Checks were presented to Hammerle, Frank and Gerew by Eugene F. Wirth, company president.

#### Todd Printing Div. Expands

Reorganization of the Printing Division of The Todd Co. Rochester, N. Y., to provide for more efficient handling of an increase in business experienced in recent years, and for expected growth in the immediate future, has been announced by A. Richard Todd, executive vice-president.

As part of the company's expansion program, new equipment has been added to the printing department of the Rochester plant and in several branch plants, some of which have taken over new quarters in the last several years.

Karl Price, formerly superintendent of the printing division, has been made superintendent of branch plants, in which post he will supervise activities of the company's ten branch printing plants in the United States and Canada.

Appointed to succeed Price as printing division superintendent is Joseph L. Connel, with the company since 1924, and recently manager of

the firm's William Mann Division in Philadelphia since that plant was acquired by Todd in 1942.

Transferred to Philadelphia to succeed Connell is Norman Sass, who has been assistant superintendent of the printing department in Rochester. Howard Wolfanger, production manager, will remain in that same capacity, but with major changes in his responsibilities.

Appointed assistant superintendent of the Rochester printing department, succeeding Sass, is Richard MacAllister, who has been head of the Standards Department. Succeeding MacAllister in that post is his assistant, L. E. Kleinhaus.



#### Pitman Holds Sales Meeting

The Harold M. Pitman Co. recently held a two day sales meeting at the Stevens Hotel, Chicago, to bring all of the Pitman sales force up to date on new products. Talks were made by representatives from manufacturers of equipment and supplies.

Seated at rear table and reading from left to right are: R. W. Grubbs, manager, Dallas branch; L. A. Smith, manager, Cleveland branch; P. F. Schmidt, vice president; H. M. Pitman, president; J. Storck, manager, New York branch; H. T. Holsapple, sales manager; and K. W. Martin, manager, North Bergen branch.

#### Printing Week in Providence

Printing Week in Providence was to be observed with a number of displays of printing and lithography in prominent windows in the downtown area, with a Little Giant press operating in one window. Newspaper and radio invitations to open house in several newspaper and large printing plants were also planned. "Miss Printing Week," (Miss Mary Stansfield, a model) was selected and was to take part in several events.

#### New Dwyer Plant

The H. J. Dwyer Printing Co., Lynn, Mass., which lost its complete letterpress department by fire damage last January, now has a large brick building to replace the plant nearing completion. The offset department has continued to operate.

#### Boston Craftsmen Hold Party

Many lithographers joined in with their graphic arts industry associates at the annual Christmas party held by the Boston Club of Printing House Craftsmen, at the Hotel Gardner, December 12. The program included dinner, entertainment, and dancing.

Front row, reading from left to right are: R. W. Knecht, J. E. Behre, and C. G. Sussenberg, North Bergen; S. N. Soruwka, Cleveland; W. H. Latimer, Canada; B. A. Skomars, J. A. Meyer, and R. V. Carlson, Chicago; E. L. Daeyer, Dallas; C. A. Vistain, Chicago; T. Booth, Cleveland; and L. Weber, New York.

Second row, reading from left to right are: G. M. Griffith, and K. H. Sloan, North Bergen; E. F. Salchow, and A. W. Heyes, Chicago; R. Louison, Canada; J. Ulrich, Boston; and K. E. Newell, Chicago.



## GRAPHIC ARTS EQUIPMENT and SUPPLIES

### GENERAL EQUIPMENT

- CAMERAS
- LENSES and SCREENS
- VACUUM PRINTING FRAMES
- TEMPERATURE CONTROL SINKS
- WHIRLERS, LAMPS and LIGHT TABLES

### PHOTOGRAPHIC and PLATE SUPPLIES

#### DUPONT and KODAK FILM and PLATES

- KROMO-LITE—FOR AUTOMATIC DROPOUT
- PHOTO and PLATE MAKING CHEMICALS

## EASTERN GRAPHIC ARTS SUPPLY CO., INC.

254 W. 31 ST., NEW YORK 1, N. Y.

PLANT: 48 PERRY STREET, CLOSTER, N. J.

"'National' carbons give the vivid white light so necessary in making top-quality reproductions."

*John Spiegel, Jr.*

Daniel Murphy & Co., Inc., 480 Canal Street, N. Y. C.



*The term "National" is a registered trade-mark of*

**NATIONAL CARBON DIVISION  
UNION CARBIDE AND CARBON  
CORPORATION**

30 East 42nd Street, New York 17, N. Y.

*District Sales Offices:*

Atlanta, Chicago, Dallas, Kansas City,  
New York, Pittsburgh, San Francisco

# LITHO CLUB NEWS

## NALC Names O'Halloran Sec'y

Acting on authority given him at the November meeting in Cleveland of the National Council of the National Assn. of Litho Clubs, James J. Spevacek, president of the N.A.L.C. has named William J. O'Halloran of Chicago to the secretaryship of the association, which became vacant through the resignation of William J. Stevens. Mr. O'Halloran took over the new duties effective Jan. 1.

The new national secretary is employed by the Meyercoed Co., Chicago decalcomania manufacturers, where he holds the post of assistant superintendent. For years he has been a leader in the affairs of the Chicago Lithographers Club where, for the past year he has served as sergeant-at-arms and editor of the Club's monthly bulletin, *The Highlight*.

In announcing the appointment, Mr. Spevacek stated that Mr. O'Halloran will also assume the editorship of the N.A.L.C.'s new monthly newsletter, first issue of which was expected to appear late in January.

Christened "The Prism," this new N.A.L.C. publication will be a 4-page bulletin, letterhead size, Mr. Spevacek said, whose contents will include news of the national association's activities and of the various local clubs comprising the membership.

## Chicago Holds Party

The Chicago Litho Club's traditional Christmas party was held Dec. 22 at the Congress Hotel, with entertainment chairman David O. Swift, of Western Electric's printing Dept., in charge of arrangements. Entertainment during and following the dinner included accordion music, and a program of Christmas carols by "The Chordsmen," a quartet from Northwestern University.

Each member had brought a \$1 gift and these were distributed from a grab bag presided over by Charlie Rahn of Roberts & Porter, Inc. As an added feature everybody deposited

a dime in a teapot which was won by Chas. Lovell of Craft Printing Co.

All business matters were ruled out for the evening by Pres. Wm. Julin. Among the 75 persons present were five members of the Milwaukee Litho Club, headed by their president, Roy Tenge.

## N. Y. To Discuss Fotosetter

The Intertype Fotosetter is to be the subject of the January 25 meeting of the Litho Club of New York, at the Building Trades Club, 2 Park Ave. A representative of the Intertype Corp., is to be the speaker.

Business is also to include the annual election of officers, a formality to make official the slate headed by the present president, John Maguire, Offset Engravers Associates. Nominations were closed without opposition at the club's Christmas stag party, December 14.

About 400 members and guests attended the party, comprising dinner, an accordion serenade, and entertainment. It was held at the regular meeting place, Michael Annick, Rutherford Machinery Co., Div., Sun Chemical Corp., was general chairman of arrangements.

The club's next social event is the annual ladies night planned for Saturday, Feb. 11 at the main ballroom of the Hotel Biltmore. Dinner, dancing, door prizes and a "Broadway Show" are scheduled.

## Baltimore Plans Programs

Several events for the coming months have been announced by the Litho Club of Baltimore. The club is joining with the Craftsmen Jan. 17 in sponsoring a Printing Week dinner at Hotel Emerson, with James Rudisill as speaker. The regular monthly meeting was postponed to Monday, Jan. 23, when a quiz session will be held. This is to be at the Park Plaza Hotel, the regular meeting place.

Other events, in addition to the regular monthly meetings on the third Monday, include an oyster roast during March and a crab feast in July.



## Milwaukee Holds Party

The annual Christmas Party of the Milwaukee Litho Club was held at the Miller Inn, December 12. It was preceded by a business meeting. The balance of the evening was taken up with music, card games, songs and other entertainment. Forty-seven persons attended.

The next meeting was planned for January 24, with Mr. Gwinn of the

Above: NALC president James Spevacek installs officers of Milwaukee Litho Club. L. to R.: Ernest Blaha, Sgt. at Arms; Rudolf Bariz, treasurer; Roy Tenge, president; Mr. Spevacek; Tony Dvorak, secretary; and Peter Brogle, vice president.

Charles Hellmuth Printing Ink Corp., as speaker. He was to discuss the chemistry of inks and practical ink problems in lithography, club secretary Anthony Dvorak reports.



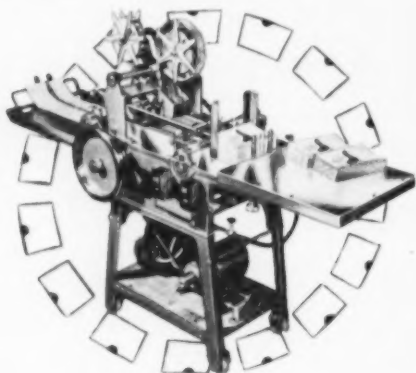
# MAGNET

TO ATTRACT  
DIRECT MAIL WORK  
to your shop!



Broadsides, folders, circulars and catalogs that adapt themselves to self-mailers, gravitate to the shop that is equipped to seal them with speed — and economy.

Sealing by hand becomes a bottleneck that holds back delivery — and runs up costs.



With SEAL-O-MATIC that bottleneck ceases to exist. SEAL-O-MATIC does the work of *fifteen* or more hand sealers and does it better. SEAL-O-MATIC handles broadsides, circulars, folders, catalogs—placing seals accurately over the edge or within 2" of the edge — at up to 15,000 per hour.

*Users report that, per dollar invested, SEAL-O-MATIC is the liveliest profit-maker among their shop equipment.*

For better service and lower prices — to more customers — write today for more information about SEAL-O-MATIC.

## Seal-O-Matic

MACHINE MFG. CO., INC.

South Hackensack • New Jersey

AUTOMATIC SEALING SERVICE, Inc.

225 Varick Street, New York 14, N. Y.

*Exclusive Users and Operators of the SEAL-O-MATIC Sealing Machine in the New York Metropolitan Area*

# Schultz

# DEEP ETCH

## chemicals

Proved dependable and economical in leading litho plants for more than a decade. You too will find it profitable to standardize on Schultz Chemicals for all your deep etch requirements.

## H. J. SCHULTZ

1240 W. MORSE AVE. CHICAGO 26, ILL.

### Cleveland Elects

Two early December parties opened holiday entertaining for Cleveland Litho Club members. The annual Christmas Stag Party on Dec. 2 at the regular meeting place, Reserve Lithograph and Printing Co., was a dinner and entertainment. Again meeting as last year with the Printing House Craftsmen, the Litho Club joined in an annual Christmas party and dance at Hotel Allerton, Dec. 10. Dinner, dancing, favors and prizes, and Litho Club movies were on the program.

New Litho Club officers recently elected are: president, Douglas Smith, Smith and Setron; vice-president, Andrew Balika, Copiier Lithograph Corp.; treasurer, Henry Prokukpek, Central Lithograph Co.; and Secretary, Sol D'Alessandro, Horn and Norris.

Chairman of the board of governors is Herbert H. Johnson, American Greeting Publishers. Others of the Board are: C. T. Bryant, Walter F. Trempler, Clarence E. Wolters, Andrew Balika, Thomas P. Mahoney, Richard E. May, Fred Kruse, John E. Braun, Henry Huefner, William C. Stone, Henry Honus, William H. Watkins.

John McMaster of the Eastman Kodak Co. addressed the November meeting of the Cleveland Club.

### 500 Expected at Ladies Night

A crowd of at least 500 was expected to turn out for the Philadelphia Litho Club's Ladies Night January 14 in the ballroom of the Bellevue-Stratford Hotel. Music, dancing, a floor show, prizes and gifts for the ladies were on the agenda.

John Knellwolf of Joseph Hoover

and Sons was chairman of the entertainment committee for the annual affair.

The club's regular January meeting was to be held Monday Jan. 16 as part of Philadelphia's observance of Printing Week. The meeting was to be held jointly with the Franklin Institute and the Printing Industry of Philadelphia, and the speaker was to be Victor Keppler, color photographer, of York.

Leslie Farrell of McCandlish Lithograph Corp. became a member of the club's board of governors at that group's meeting December 5 at the Poor Richard Club. Mr. Farrell will fill the unexpired term of William Hughes, who recently joined the Butterick Co., Altoona, Pa.

Litho Club President Joseph Hickey reported to the board a continued upswing in attendance at regular monthly club meetings.



New officers of the Dallas club, L. to R. Tommy Monk, Walter H. Tew, A. W. Hudgins, and Thomas Masters. Below: Part of the crowd at the December meeting.

### New Litho Club in Dallas

On December 7 about 80 men from the lithographic trade in Dallas, Texas, met at the Hotel Adolphus and elected officers for the newly formed Dallas Litho Club. These were: Walter H. Tew, Century Printing Co., president; Tommy Monk, Monk Bros., vice-president; A. W. Hudgins, treasurer, and Thomas R. Masters, secretary. The club's membership voted to affiliate with the National Assn. of Litho Clubs.

Club meetings will alternate the first Monday of each month, one being in the form of a demonstration while another will serve as a clinic. A. B. Woodruff, engineer in charge of offset press development for Harris-Seybold Co., addressed the December meeting and showed slides depicting the development of offset presses in this country.

Instrumental in the formation of the club were Joe Miller, lithographic technical adviser, Ansco Div.; Gordon Hughes, Dallas regional manager, Harris-Seybold Co., and Robert Grueby, regional manager of the Harold M. Pitman Co. Mr. Hughes conducted the early part of the meeting, when officers of the club were elected.

The first organization meeting was held October 28.



## Boston Hears Mack

Norman A. Mack, technical director, Roberts & Porter, Inc., was the speaker at the December 14 dinner meeting, at Hotel Gardner, of the Boston Litho Club. James Beldotti, Winthrop Printing & Offset Co., president of the club, presided, and 85 persons were present.

Mr. Mack discussed general shop procedures. He spoke specifically on the subject of dampeners and pointed out that dirty dampeners often cause mechanical difficulties in offset. A

general discussion ensued during the question and answer period, presided over by moderator Edward W. Harnish, club secretary.

Merrill N. Friend, in charge of the laboratory at Spaulding-Moss Co., Boston, was elected treasurer of the Boston Litho Club recently, following a meeting of the board of governors. This action fills the vacancy created by the resignation of Douglas F. Reilly, Buck Printing Co., Boston. Mr. Reilly resigned because of poor health and pressure of business.

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PLASTIC PLATE is manufactured in thickness ranging from .005" to .100" and is available in Transparent, Translucent, or Opaque, with either a Mirror Polished or Matte Finish on one or both sides.

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## LITHO CLUB GUIDE

### BALTIMORE

J. T. Keating, Secy.  
Bingham Bros. Co.  
125 Colvin St., Baltimore 2, Md.  
Meets 3rd Monday, Park Plaza.

### BOSTON

Joseph H. Ulrich, Secy.  
Spaulding-Moss Co.  
42 Franklin St., Boston  
Meets 2nd Wed., Hotel Gardner.

### CHICAGO

Lester Von Piaschicki, Secy.  
Columbian Lithographing Co.  
547 S. Clark St., Chicago 5, Ill.  
Meets 4th Thursday, Congress Hotel.

### CINCINNATI

Max Birri, Secy.-Trans.  
The Palm Bros. Deal Co.  
Regent, Lexington & Spencer Ave.  
Cincinnati 12, Ohio.  
Meets 2nd Tuesday.

### CLEVELAND

Sol D'Allesandro, Secy.  
Horn & Norris, Inc.  
2729 Prospect Ave., Cleveland  
Meetings announced locally.

### CONNECTICUT VALLEY

John Schechterle, Secy.  
Brooks Bank Note Co.  
Springfield, Mass.  
Meets 1st Friday, March, May, Sept., Nov., and  
sometimes other months, City Club, Hartford.

### DALLAS

Walter H. Tew, Pres.  
Century Printing Co.  
Meets 1st Monday of Month

### DAYTON

Edward Bode, Secy.  
Standard Register Co.  
107 Campbell St., Dayton  
Meets 1st Monday, Suttmiller's Restaurant.

### DETROIT

Erwin Stoetzer, Secy.  
Walker Letter Service  
66 E. Forest, Detroit 1, Mich.  
Meets 2nd Thurs. at Carl's Chop House.

### MILWAUKEE

Anthony Dwarzak  
4956 W. Volmer Ave.  
Milwaukee 15, Wis.  
Meets 4th Tuesday at the Miller Inn.

### NEW YORK

Garard L. Urban, Secy.  
Brett Lithographing Co.  
Skullman Ave. & Pierson Pl. Long Island City  
Meets 4th Wednesday, Building From Cive

### OMAHA

Walter Graham, Secy.  
Modern Litho Co.

### ONTARIO

Walter B. Thompson, Pres.  
Thompson & Sons, Ltd.  
5-7 St. Albans St., Toronto, Can.

### PHILADELPHIA

Joseph Winterburg, Secy.  
622 Race Street,  
Philadelphia 6.  
Meets 4th Monday, Poor Richard Club.

### ST. LOUIS

Fred Francis, Sec'y.  
Comfort Pig. Co., 200 S. 7th St.  
Open meetings in Feb., April, June and Aug

### TWIN CITY

Elwood Osberg, Sec'y.  
Mono Trade Co.  
213 S. 6th St., Minneapolis  
Meets last Thursday of month.

### WASHINGTON

Robert E. Russell, Secy.  
3106 Old Dominion Blvd.  
Alexandria, Va.  
Meets 4th Tuesday, Hotel 2408 (N.W. 16th St.)

### NAT'L. ASS'N. OF LITHO CLUBS

James Szwajack, Pres.  
Printing Div., Western Electric Co.  
Chicago, Ill.

### 115 at Springfield Quiz

One hundred fifteen lithographers from all parts of New England attended the NAPL-Litho Club quiz at Springfield, Mass., December 3, in spite of a heavy snowfall and icy roads. The group included foremen, superintendents and owners of many plants. The sessions opened at 9:30 a.m. and continued all day, with a break for group luncheon. It was held at the Kimball Hotel.

William J. Stevens, executive secretary of the National Assn. of Photo-Lithographers, was moderator, and members of the panel were Clifford DuBray, Brooks Bank Note Co., Springfield, president of the Connecticut Valley Litho Club, co-sponsor; John Groet, Eastman Kodak Co.; Charles Latham, Lithographic Technical Foundation; Ted Makarius, Fuchs & Lang Mfg. Co.; and A. P. Reynolds, S. D. Warren Co.

The meeting was a return engagement of the event which was held the previous year in Boston.

The next meeting of the Connecticut Valley Litho Club is planned for Friday, February 3 at the City Club, Hartford, when the subject is to be photo-typesetting. Herman Freund, Intertype Corp., Brooklyn, is to speak. A motion picture also is to be shown. Other business will include the annual election of officers.

### Chicago Launches Shop Meetings

The Chicago Lithographers Club inaugurated a new series of workshop conferences for the trade on Dec. 10 with 125 lithographic craftsmen in attendance. Norman Mack of Roberts & Porter, Inc., was in general charge of the program which was presented at Glessner House, through the courtesy of the Chicago Lithographic Institute. Theme of the meeting was new techniques in camera operation.

George Jorgenson of the Lithographic Technical Foundation opened the meeting at 9 a. m. with a discussion of "Flare Control, Flare Effects." Michael H. Bruno of L.T.F. followed with an explanation of the "Magenta Contact Screen." Then came Alexander Clair of Eastman

Kodak Co's graphic arts division, Rochester, N. Y., with a talk on "Fluorescent Separations," and after him Alfred Brown, assistant to the manager of the Lithographic Institute closed the formal technical discussions with a talk on "Magenta Masking." D. Donaldson of Eastman Kodak's Chicago branch then took charge of a forum discussion which ran a full hour beyond the scheduled adjournment time of 1 p.m.

### Washington Meets Jan. 24

The next meeting of the Washington Litho Club was scheduled for Tuesday, January 24 at Hotel 2400, Robert E. Rossell, club secretary, announced. The program was to be announced locally.

At the club's Christmas party and ladies night, December 9, 425 members and their guests attended. Held at the Mayflower Hotel, a buffet supper was served, and the balance



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of the evening was devoted to entertainment, awarding of prizes and dancing. Jerry P. Looney, Navy Hydrographic Office, was general chairman.

#### Sayles of Forbes Dies

Joseph DeWitt Sayles, 79, retired vice president of Forbes Lithograph Mfg. Co., Boston, died in a New York hospital Dec. 3. He started work for Forbes as a boy, and worked up to become vice president in charge of the New York office.

#### Nekoosa Holds Conference

The seventeenth annual sales conference of Nekoosa-Edwards Paper Co. was held recently in the company's main offices in Port Edwards, Wis. Nekoosa sales representatives from the various territories throughout the United States attended. Speakers included John E. Alexander, president and general manager, Adam C. Remley, vice president in charge of sales, Charles H. Reese, vice president in charge of manufacturing, Carl A. Schiebler, assistant general

sales manager, Charles A. Polansky, order department manager, L. A. Gardiner, manager of the Los Angeles office, Walter A. Radke, treasurer and Tad R. Meyer, advertising manager.

#### Columbus Bank Note Expands

Further expansion of the facilities of Columbus Bank Note Co., Columbus, Ohio, has been announced by Robert G. Kelly, president. A Harris two-color 35 x 45" offset press, a Lanston camera, two Seybold cutters, and new bindery equipment have been added. The company already operated four single-color offset presses, special check imprinting equipment, and a photocomposing machine.

#### Changes at Milwaukee Firm

The ownership of Arandell Litho Corp., Milwaukee was purchased recently by two of the firm's employees. F. E. Treis, now president and treasurer, and W. F. Engelhardt, executive vice president and secretary. The former owner was R. F. Owsley who planned to move to San Diego, Calif. Ernest F. Reidelbach, who founded the firm with Mr. Owsley 14 years ago remains as vice president.

#### Columbus Firm Moves

The Nitschke Printing & Lithograph Co., Columbus, Ohio, producers of direct mail pieces, catalogs and general office forms, moved Dec. 1 to a larger plant at 108 W. Spring St. The plant will be reconditioned and equipped with modern presses and printing equipment. The Nitschke Co., founded 68 years ago, will occupy the two-story building with approximately 13,000 square feet of floor space.

#### Knust, Seattle, Dies

Christian Knust, 65 president of the National Lithograph Co., Seattle, died December 16. Born in Texas, he came to Seattle in 1887, and in 1925 he helped organize the National firm.

#### Technicraft Adds 41x54"

Technicraft, Inc., 811 West Cheapside St., Cincinnati, has installed a new 41x54" Harris press.



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# EQUIPMENT

## SUPPLIES, SERVICES, BULLETINS

### Booklet on Process Cameras

Consolidated Photo Engravers & Lithographers Equipment Co., has announced the publication of a 24 page booklet, "Choosing A Process Camera." Planned to provide the information necessary for the selection of the right combination of lens, camera and accessories for the specific photographic task, this booklet contains the data on camera fundamentals, process optics, functional design and operation, automatic controls and time saving accessories, etc. The material, originally presented as a survey of camera equipment in "Modern Lithography," has been revised and expanded by the author, Herbert P. Paschel.

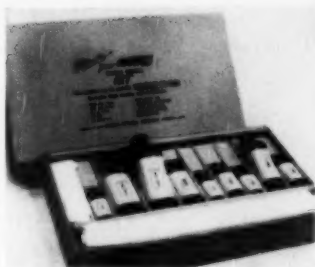
Copies are available from the company, 2646 W. North Ave. Chicago.

### Booklets on Composing Room

Two booklets "Composing Room Layout," and "Clean House for Profits," have been issued by Hamilton Mfg. Co., Two Rivers, Wis., to aid printers and lithographers in modernizing composing room operations to make them profitable. Ray C. Cook, sales director of the company's Printing Equipment Division, called attention to the booklets in a year-end statement in which he declared the trend is toward making the composing room produce its share of profits.

### Offers Dry Spray Powder

Basic Products Co., 549 West Washington Blvd., Chicago, is offering a line of new Micromark dry spray powders for offset prevention. These powders are said to be manufactured from specially prepared pure food starches, by means of a recently developed process, which permanently eliminates the normally cohesive tendency of the starch granules.



### Offer Surface Plate Kit

Another introductory kit of Harris platemaking chemicals is being made available to the lithographic industry in January, according to A. S. Hollord, sales manager of the Chemical Division, Harris-Seybold Co., Cleveland. Known as the "Harris Surface Kit," the new package contains a complete set of Harris litho chemicals for making offset plates by the surface process. It contains an illustrated instruction manual, and also included are cheesecloth, cellulose towels and enough coating and chemicals to make several medium-sized surface plates for actual press runs.

In October the company placed a kit of deep etch chemicals on the market. According to the Harris Co., it is proving to be popular with platemakers. Many have tested deep-etch plates for the first time at small expense, while others have checked their regular deep etch methods against a laboratory-approved process.

### New Strong Grafarc

To meet the demand for greater illumination on large size printing frames Strong Electric Corp. has developed the new #32500 Grafarc Printing Lamp with an associate transformer. The new lamp will approximately double the illumination produced by the #32000 printing lamp. The new National Photo Carbon No. 118 is burned at 140 arc amperes, while the transformer draws 35 amperes from a 220 volt line.

### Offer New Plate Process

A new lithographic platemaking process, claimed to offer plates without usual albumin plate troubles, good reproduction quality, and long life on the press, was announced in December by Development Enterprises, Inc., 1110 13th St., North Bergen, N. J. The process, called C.F.C., is manufactured by the Charles F. Clerkin Co., and has been tested in New England for eight months. Facilities have now been completed for volume production, it was said.

Development Enterprises, which is now making dealer arrangements described the materials for the process as follows:

"The complete process consists of 'C.F.C. Plate Coating Solution,' which is furnished sensitized and ready for use. This is a non-spoiling coating, somewhat faster under the arc than albumin coatings. The coating solution is used in combination with 'C.F.C. Lacquer,' which is also light sensitive when used as directed. The lacquer is applied after the plate is coated, but before exposure. The coating of lacquer effectively seals out moisture, an important factor in humid weather, and when the plate is exposed the lacquer is hardened by the action of light in the work areas. After exposure, developing ink is applied as usual and the plate is developed with the help of a weak solution. A special 'C.F.C. Desensitizer' is also furnished."

### New Adjustable Proof Press

A new type of proof press, with an adjustable bed for proving plates of varying thicknesses has just been placed in production by Vandercook & Sons, 900 N. Kilpatrick Ave., Chicago 51.

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Every pressman will appreciate the absolute uniformity of this product with regard to its body consistency. When you use Duall Drier you are not faced with the problem of gauging the amount of drier to be added by reason of lack of uniformity in batches. Once the proper amount of drier is determined for any particular ink, the formula may be set up as a standard and used throughout the year. Inks with Duall added will not catch bronze.

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### Harris Making Rotaries

More than 20 of the new Harris "TRG" rotary typographic presses have been purchased within the past year, by firms in the magazine, label, mail-order and carton printing fields, Ren R. Perry, general sales manager, Harris-Seybold Co., Cleveland, has announced. Mr. Perry stated that "It is Harris-Seybold's policy to develop the best equipment for all three printing methods—lithography, letterpress and gravure. We are now using the lessons learned in over 40 years of offset specialization to produce improved rotary machines for the other methods, equally capable of handling large sheets of paper at high speeds and close register." The new press is a two-color model, handling sheets from 25" x 38" up to a maximum 45" x 66". It is similar in appearance to the Harris offset presses.

A main feature of the TRG is its double delivery-system, which provides alternate delivery to two piles, or delivery to a single pile while a full skid of printed sheets is removed.

### New Baum Office Folder

A new office folding machine, for letter-size sheets, has been announced by Russell Ernest Baum, 615 Chestnut St., Philadelphia. It is described by the manufacturer as a high speed, heavily built machine, designed to fold letters with one, two or three parallel folds in one operation. Information is available from the company.

### Bulletin on Air Conditioning

Bulletin No. 112, describing their controlled humidity method of air conditioning has been issued and is available from Niagara Blower Co., 405 Lexington Ave., New York 17.

### New Gevaert Print Method

A new method for making monochrome prints from color films has just been announced by the Gevaert Co. of America, Inc., 425 W. 55th St., New York. The method, said to be greatly simplified, includes the use of a new type of "Diaversal" paper which may be used for contact print-

ing or enlarging. With the new material it is easy to make sepia prints from large color transparencies by contact, or to enlarge small movie film frames to many times their original size, it was said. The prints can be used for making monochrome reproductions from color transparencies. Information is available from Gevaert dealers.

The company has also announced that its main plant in Belgium has completed a post-war reconstruction program and is now in full-scale production.



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To all those men and women in the Graphic Arts, who buy, print and sell our products — whose suggestions and criticisms have enabled us to refine and improve...

To our thousands of employees all over the country — at their machines or desks or on the road — making and moving and selling the products by which we live and serve...

To all of these we acknowledge at this turn of the year the asset of your GOOD WILL.

On our books this GOOD WILL appears as a mere \$1.00. Yet no figure among all our assets is more highly prized or more carefully guarded. It is our most precious dollar!

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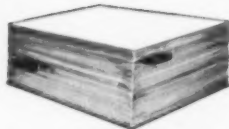
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Assures absolutely level stock piles for the feeder suckers to contact. Having a longer taper than wooden wedges, it prevents "misses", dragging, folding under, etc., because it permits closer adjustment. A great aid on the delivery end, too, as it assures proper jogging. Saves its cost in stock and time saved!

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and the water vapor which the air can no longer hold is condensed as liquid water. In nature this condensation takes place in the form of fog, dew or rain. The amount of water vapor condensed is exactly equal to the difference between the absolute humidities at the higher and lower temperatures.

#### **Dew Point**

As explained above, if saturated air is cooled even to the slightest degree, water vapor will be condensed as liquid water. If unsaturated air is cooled, no condensation will take place until the temperature is reached at which the water vapor held by the air just saturates it. If cooled below this temperature, the water vapor which the air can no longer hold is condensed as liquid water. Thus, air containing any given amount of water vapor can no longer hold all of it if the air is cooled below a certain definite temperature. The temperature, at which or below which condensation occurs, is called the dew point. Saturated air, by definition, is at its dew point; unsaturated air is above its dew point; and, also by definition, the temperature of saturated air cannot be below its dew point.

Dew point is a convenient, although indirect, measure of water vapor content or absolute humidity. It simplifies description of air conditioning operations and equipment.

*More excerpts from this book will be published in later issues.—EDITOR★★*

### **SUPPLIERS' PROBLEMS**

*(Continued from Page 29)*

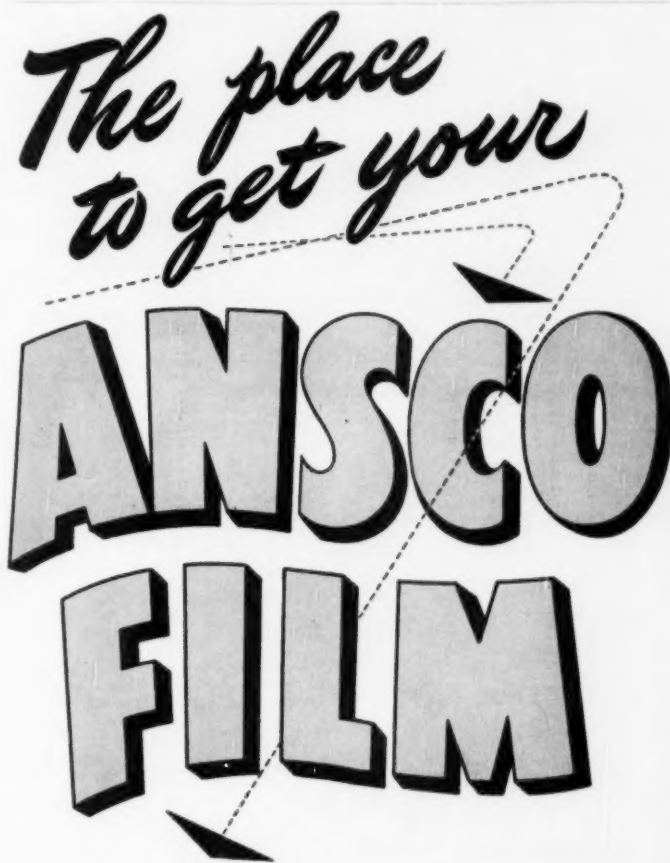
We are *not* advocating that the supply salesmen make fewer calls, or make themselves less available for service and trouble visits. In fact to an increasing degree the litho supplier should be expected to assume an even greater responsibility for assisting lithographers in operating their businesses through furnishing them with technical information about any new developments, by offering them guidance with specific problems, by extending adequate credit promptly, by providing the best quality product consistent with the price paid, and

by filling orders and adjusting complaints promptly. The supplier's responsibility, moreover, should further extend not only to maintaining consistently high standards of quality and service but, through technical research and experimentation, to developing new products and improving old ones.

In order to do that, frequent calls by the supply salesman are necessary, to gather information, to service products, or to check up on existing installations. What *we* are suggesting is

that perhaps the waiting time of the litho supply salesman can be reduced by a little more careful scheduling of calls (and living up to the schedules), and by the lithographer giving as prompt attention as possible to the supplier when he does call.

World War II proved the value of good supplier relations. There was a shortage of almost everything. It was found that it pays in money value, to be a pleasant, friendly customer as well as a free-spending one. It's only human nature to want to supply first



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CONTRAST

PANCHROME PROCESS

**G. CRAMER DRY PLATE COMPANY**  
Lemp and Shenandoah Ave. St. Louis 4, Mo.

the customer who is pleasant and friendly when there isn't enough to go around for all.

Of course, one of the most important elements affecting the litho supplier-lithographer relationship is the type of supply salesman—his personality, educational background, mental attitude, practical training and experience and technical know-how. More and more the tendency among suppliers is to be highly selective in choosing salesmen. Our studies show that a close relationship exists between a supply salesman's practical understanding of all the technical phases of the lithographic process, and his success as a salesman, not just his success in writing orders but in building up good will and lasting, friendly relations in the trade. The most important qualities that make a good litho supply salesman, in our opinion, are a good basic education in chemistry and allied sciences, plus practical experience in the pressroom, camera and platemaking departments. And, lastly, he should not be a job-hopper.

With these qualities the chances are excellent that he will make a good salesman. Actual sales experience is secondary. Of course, an agreeable personality is a help, as it is in all selling. The supplier may build up an enormous backlog of goodwill among lithographers only to have all of his good work nullified because some lithographer may take exception to the personality of one of his representatives. Those are the chances you take. Yet, they must be taken, for nothing has ever replaced personal selling and never will. Advertising can never replace personal selling, although it can acquaint customers and prospects with your company and products, and can pave the way for salesmen. At the point of personal contact, face-to-face with the client, is where most sales are made and good permanent relationships are established—in spite of increased selling costs.

Our desire to air some of these problems is based on the awareness that you, the lithographer, by your programs of sales promotion, expansion and growth, are constantly building new markets for us. We remind ourselves of that fact often. And we

are extremely interested in keeping your supply and equipment costs as low as possible by reducing our own costs of serving the trade. ★ ★

## SILK SCREEN

(Continued from Page 59)

sharp—a feature especially important for printing with photographic stencils where small type or halftones are reproduced.

The General Press is suitable for

printing with any consistency of paint—fluid or paste. This means that the machine can be put to work on all-over varnishing or spot varnishing, it can print glue, paste, decal varnish, etc.

## Other Developments

**Day Glo Paint.** A comparison of this new type of paint with standard paint would show why the manufacturers of Day Glo call their product "Neon in Print." More technically speaking, it is a daylight fluo-

# ONE! TWO! THREE! FOUR!

## Practical Aids to Better Presswork

Your regular inks will print better—under all conditions—when you add these ink conditioners, according to simple directions. Results are uniform and positive! Your inks are always at printing peak. Many press troubles vanish!

Makes  
Good Ink  
Better

### "33" INK CONDITIONER

For letterpress. With "33", presswork improves noticeably. Colors pop out with greater brilliancy. Halftones stay "sharp, clean, and open". Picking and tackiness are eliminated. Increases affinity of ink to paper. Makes good ink better.

### "O-33" INK CONDITIONER

Developed particularly for litho and multilith. Similar in all qualities to "33". Saves time in wash-up. Less adjusting is required. Ink flow is uniform. Fewer re-runs are necessary.

### "600" INK CONDITIONER

It does for light-bodied inks what "33" Ink Conditioners do for normal inks. You get greater overall print quality. Added bulk provides 15% to 30% greater coverage—at little extra cost. Unexcelled with glass inks.

### GLAZCOTE INK CONDITIONER

Makes your REGULAR inks scratchproof. Glazcote assures a tough, glossy, abrasion-proof finish. Add in small amounts, according to simple directions. It's a proved answer to one of printing's most troublesome problems. Try it in your shop.



100% Guarantee

### 8 LB. TRIAL ORDER:

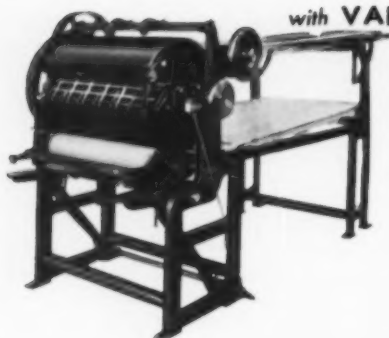
If our Ink Conditioners do not satisfy you completely, return the unused portion at our expense!

Central

COMPOUNDING COMPANY

1718 North Human Avenue, Chicago 47, Illinois

IN CANADA—J. J. CANADIAN FINE COLOR CO., LTD., TORONTO
Export Division: Guterman Co., Inc., 35 South William Street, New York 4, New York



with VARNISHES-LACQUERS-PAINTS-PLASTIC COATINGS

## CHAMBERS VARNISHERS

are IDEAL for Sheet-Fed Jobs

Visualize varnishing in terms of Chambers performance, and count on smoother, better jobs. There's a Chambers to fit every sheet-fed need, from 28 to 78 inches in width.

Illustration shows delivery quadrant for sheet-delivery at operator level . . . main cylinder clutch for stopping and starting main cylinder without stopping applicator and ducter rollers . . . foot treadle for rapid disengagement of fountain assembly from main cylinder.

Extra attachments available for stripping and strip gumming.

Send for new bulletin today!

**CHAMBERS BROTHERS COMPANY**

52nd & MEDIA STS.

PHILADELPHIA 31, PA.

## Offset Color Plates

All plates or negatives essential to the finest Offset and general Lithography, including

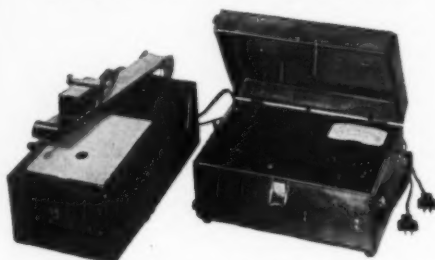
COLOR SEPARATIONS  
COLOR CORRECTED NEGATIVES  
FOR PHOTO COMPOSING MACHINE  
BLACK AND WHITE  
ALBUMEN AND DEEP ETCH  
PRESS PLATES  
POSITIVES -- PROVING

We are not affiliated with any  
Lithograph house  
We operate no presses

# Lithoplate Co.

1119 N. WATER ST. MILWAUKEE, WIS.

## PHOTOVOLT Electronic Transmission Densitometer



Speed up production, reduce waste of labor and material by using this high-precision instrument for

- reliable indication of density, independently of personal judgement and light conditions
- densities up to 5.0, for plates up to 30"x40"
- for wet and dry plates, for color and black-and-white, for negatives and transparencies.

ALSO

### Reflection Meter Mod. 610

for ink fountain and color control in press runs

Write for literature to

**PHOTOVOLT CORP.**

95 MADISON AVE.

NEW YORK 16, N. Y.

## Insures Proper Registration! Saves Paper! THE NEW IMPROVED PAPER HYGROSCOPE

One job saved more than pays for the Paper Hygroscopel Simply insert the instrument in a skid of paper. Immediately, you know whether paper requires conditioning . . . and to what extent. Exact moisture content can be read for careful balancing with PRESSROOM. The result? Guesswork is eliminated; proper registration is insured; paper is saved.

PATENTED BY LITHOGRAPHIC TECHNICAL FOUNDATION

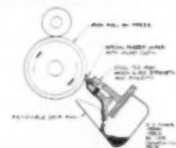
Instruments in Use Should Be Re-equipped with the New and More Accurate Dial

Kindred, MacLean  
Kellogg & Bolkeley,  
U. S. Dept. of Interior,  
Consolidated Litho,  
A. Helm, etc.

FOR DETAILS WRITE

SPORTSMEN ACCESSORIES, INC.,  
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## INTERNATIONAL PRESS CLEANERS



are daily demonstrating  
their efficiency in increasing  
Output and Lowering  
Production Costs

### This Is Our Method of Removing Ink From Press

We invite you to take advantage of our thirty day trial offer. If interested write and let us know the size and make of your press.

**INTERNATIONAL PRESS CLEANER & MFG. CO.**  
112 Hamilton Ave. Cleveland, O.

rescent that derives its high chromatic potency from daylight or sunlight. The fluorescent glow lasts 30 or 40 days when the print is exposed to direct sunlight. For interior use, signs printed with Day Glo will retain their vividness for 2 or 3 months. It can be used for 24-sheets, car cards, outdoor signs, for gas station banners, truck posters, etc. One production use is to print by lithography the major portion of the design and let the silk screen printer handle the Day Glo imprint.

Other paints are now available for nearly any type of printing requirement. There are special paints for printing on Vinyl, paints for Lucite and other plastics, paints especially formulated for printing on glass, on metal, on rubber, on cloth. There are paints for flocking and tinselling. Paints that have a powerful opacity and hiding power, as well as those which are transparent as film. And of course metallic paints of all colors besides the traditional gold and silver.

The field of photo-stencil work is expanding constantly. That show at Cleveland revealed a wide-spread use of photographic work applied to silk screen. Beside the standard carbon tissue stencils there are now available transfer films which require no highly specialized camera or other equipment. There are pre-sensitized films that make the procedure for doing photographic stencil work a comparatively simple one.

Silk screen is being used in many cases to supplement lithographic production, for such uses as short-run trial posters; imprinting posters, car cards, etc.; for printing white on black or white over gold, etc.; and for revising already lithographed material through 100 percent opaque overprinting. ★★

## ZABEL BROTHERS

(Continued on Page 49)

kinds of color advertising material. Two new printing frames of 72" and 80" have been added in the plate room, making a total of six vacuum frames. Most of these are equipped with light integrators. Four large

vertical whirlers handle coating work.

In the pressroom, recent additions include two two-color and two single-color presses. This makes the press line-up as follows: three single-color 22 x 34"; one 34 x 44"; one 36 x 48"; one 38 x 60"; two 41 x 54"; and the following two-colors: one 36 x 48"; one 41 x 54"; and one 42 x 58". A 22 x 34" and a 42 x 58" both single-colors, are on order. Proving is done on an old model 22 x 34".

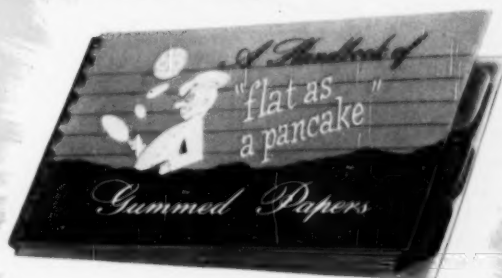
A feature of the pressroom is a booth, with colored fluorescent lights,

for inspection of color press sheets at night. This was built from a description and specifications published in *Modern Lithography* (May, 1948, pg. 33).

A complete bindery consists of five cutting machines, one a new 64"; three perforators; four folding machines; and two eyeletting machines. Another large cutter is on order.

The bindery serves both the offset division, which accounts for the large part of the company's production, and also the letterpress division, with a

## Ask for Your Copy!



# free

to users of  
gummed papers.  
Just ask your  
"Flat-as-a-pan-  
cake" distributor  
or write direct  
to . . .

## Tells You, at a Glance, What to Specify...

### kind of gumming

Shows you how to select Strong, Dextrine, Met-L-Stik, Stick to Tenite, or Special gumming for best results according to intended use on surfaces or product. Helps you eliminate waste.

### kind of paper

Full range of samples showing whites and colors in English Finish, Supercalendered, Coated and Special papers are indexed for quick and easy reference. Helps you get more business.

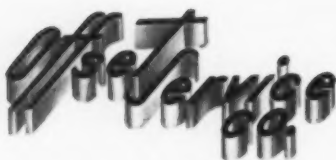
*Those Gumming Specialists*

## The Brown-Bridge Mills, Inc., Troy, Ohio

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**SAN FRANCISCO**  
1 Drumm Street

**ST. LOUIS**  
4053 Lindell Blvd.  
**CHICAGO**  
608 South Dearborn

**BALTIMORE**  
707 Garrett Bldg.  
**PHILADELPHIA**  
1736 Land Title Bldg.



Supreme quality offset  
color reproductions  
the way you want them...  
when you want them.

Skilled craftsmen under the supervision of  
department head-owners and all modern  
equipment assure a right job every time.

COLOR PROCESSES  
BLACK AND WHITE  
NEGATIVES • PROOFING  
COMPOSING MACHINE PRESS PLATES

We do not own or operate presses  
for FAST service phone, wire, or  
write... **Elmore 2723**

**OFFSET SERVICE CO.**  
SEXTON BLDG. MINNEAPOLIS 15, MINN.

## "Goerz American" PRECISION PHOTO-LENSES

An American Product Since 1899

➔ will give you a lifetime of  
profitable satisfaction ➔

### GOERZ DAGOR F8.8

The favorite universal all-purpose lens, color-corrected, wide-angle,  
convertible—for interiors, exteriors, commercial and amateur work,  
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The wide-angle lens, greatly extended coverage, convertible.

### GOERZ DOGMAR F4.5

The perfect speed lens, color-corrected, convertible. For news,  
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The apochromatic process lens, for color separation with perfect  
register in the final process, also for black and white commercial  
work.

### GOERZ GOTAR F8.8, F8, F10

The lens for black and white, process and commercial work,  
copying and enlarging.

### GOERZ HYPAR F2.7, F3

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The movie lenses with microscopic definition.

### GOERZ MOVIE CAMERA ACCESSORIES

➔ Order thru your dealer now  
for delivery as soon as possible ➔

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OPTICAL COMPANY

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**PRECISION  
QUALITY  
DURABILITY**

In **HALFTONE**  
and **MEZZOGRAPH**  
SCREENS

...Yet Costs are *Unusually Low!*

Users of International Screens find them of a quality  
and precision sharpness comparable to the finest  
screens ever produced. They find in them a greater  
durability and higher resistance to scratching. Yet  
the same expenditure required for only a few screens  
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of International Screens which will meet the full  
range of a plant's requirements.

*A new folder describes these screens in complete  
detail, lists prices, and includes information on  
our five day trial offer. Write for it today.*



**MOORE LABORATORIES**

70 West Montcalm Street Detroit 1, Mich.

**INTERNATIONAL SCREENS**

## Chrome Steel GRAINING BALLS

- ★ Large Variety of Sizes
- ★ Highly Polished
- ★ Hardened Through

*Samples Sent on Request*

**E. E. Brennan Company**

*Established 1907*

17 South St. New York 4, N. Y.  
Telephone BO 9-2127

*It's New*

**A Film  
Scribing Tool**

scientifically  
designed for

**Ruling Negatives**

**Litho Ruled Forms - QUICKER - EASIER - BETTER**

- ★ Perfect uniformity of rules—no film spoilage.
- ★ 6 cutting heads in set: 4 for single rules from hairline to 1-point rules; 2 cutting heads for double rules.

*A postcard will bring descriptive literature*

**Scriber Specialties**  
100 LANSING BLVD. DULUTH, MINNESOTA



composing room, and seven presses ranging from 10 x 15" up to a 27 x 41" two-color Miller.

The company also has two large size plate graining machines.

The paper storage and conditioning room has paper hanging equipment, and a heating and humidifying system for moisture control.

The entire plant is tied together with an intercommunication system and a public address system.

Known for years as music lithographers, and also as a label house, because of its leadership in these fields, the company in recent years has greatly diversified its volume. A large part of the production is now devoted to color advertising material, displays, brochures, folders, etc., including Kodachrome reproductions. Linking the 1950 activities with the past is the Zabel music engraving department, where two skilled engravers have achieved remarkable records. Misses Chrissie Unverzagt and Reba Johnson, with 57 and 53 years service, respectively, carry on hand engraving of original music plates. Proofs from these plates are reproduced by offset. A large percentage of employees have long service records.

Another link with the past is the chairman of the board of directors and the only surviving member of the Zabel Brothers who founded the firm in 1885, William L. Zabel. His son, William E., is now president, and William E., Jr., is treasurer. H. Y. Cope is vice president and secretary. Other office and shop executives include Bruce Dunham, sales manager; H. W. Iles, in charge of purchasing; Peter Coia, in charge of costs and production; Louis Poplar, plant superintendent; Albert R. Berger, personnel manager; Herbert Bradt in charge of pressroom, assisted by Wallace Richard and James Richard; Fred Scheel, platemaking foreman; Steve Coppola, foreman of camera, art and color correction; Charles Sensenbaker, foreman of the bindery and shipping sections; and Henry Wollschlager, music department foreman.

Co-founder of the firm, with William Zabel, was his brother, Oscar,

who was a journeyman color lithographer. William was a litho artist and stone engraver. The business was first carried on from their home on Ogden Street, and expansion caused a move to a room at 10th and Spring Garden Streets. Another brother, Edward, came with the company, and later on became a partner. The company's first power press was installed later after a move to a 30 x 60 foot room at 12th and Buttonwood Streets.

The company was the pioneer music printing firm in Philadelphia, and its

chief competitors were Gilson & Co., Boston, and John Worley in Philadelphia. In 1895 a merger was formed with the latter, resulting in the Zabel-Worley Co. Further expansion followed, with a move to 719 Vine Street. In 1904 the Zabel-Worley partnership was discontinued, and the Worley Company moved to Boston. Zabel Brothers Company carried on in Philadelphia to expand into the label field, and in recent years into all types of advertising color work.★★

## PRIVATE LIQUIDATION

### COMPLETE LITHO-OFFSET & FINISHING PLANT

245 HOLLENBECK STREET

ROCHESTER, NEW YORK

#### PRESSROOM

- 1—HARRIS 50x69—two-color
- 2—HARRIS 41x54—single colors
- All presses equipped with Neutralizers and Spray equipment.
- 1—PAASCHE Portable Spray Gun
- 700—New Aluminum & Zinc Plates—54" and 69"

#### BRONZERS

- 1—KOHMA 44x66—Portable
- 1—U.P.M. 44x64—Hand Fed
- 1—U.P.M. 44x64—Dexter Pile Feeder

#### PAPER CONDITIONER

- 1—WILLSEA No. 2—U Type

#### PAPER CUTTERS

- 1—60" New SHERIDAN Power Gauge
- 1—57" OSWEGO Giant End Pull
- 1—44" SEYBOLD—10 ZC—#B104

#### SCORING PRESSES

- 2—THOMSON 28x41—Model EC-9-6
- 1—THOMSON 26x38
- 1—THOMSON 28x41—Style 5

#### HIGH DIE CUTTERS

- 2—SHERIDAN 20x44
- 1—PEERLESS 21x37

#### EMBOSSERS

- 1—SEYBOLD 26x33—Gripper Delivery
- 1—SHERIDAN 35x47—Cross Feeder—Chain Delivery
- 1—Roller Embosser—29"—4 Patterns

#### MISCELLANEOUS SHOP EQUIPMENT

- 2—Air Temp. Air Conditioners—3 ton
- 1—LEWIS SHEPPARD Electric Truck
- 1—LEWIS SHEPPARD Stacker
- 6—LEWIS SHEPPARD Lift Trucks
- 1—Platform Scale
- 1—Parcel Post Bench Scale

All Electrical Equipment AC—220 V, 60 C, 3 Phase

EQUIPMENT CAN BE INSPECTED IN OPERATION  
AVAILABLE FOR IMMEDIATE REMOVAL

EVERYTHING PRICED TO MOVE!

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PLASTIC SHEETS  
HOLDS ITS SIZE  
CLOSE REGISTER

(Made From Vinylite)

TRANSPARENT CLEAR & MATTE PRESSED SHEETS NOW AVAILABLE TO 50" x 70"

FOR THE GRAPHIC ARTS

BLUE PRINT POWDER — OFFSET ZINC PLATES — CHEMICALS — GLASS

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261 Grand Concourse (E. 138 St.)

New York 51, N. Y.

MOthaven 9-7143-4

Mfrs. of Photo Glass & Plastic Specialties for the Graphic Arts

Circular and prices upon request

## "Be Thrifty In '50" BAUMFOLDERS

14x20 Five-fold Automatic Baumfolder

\$85 initial and \$1 a day for 30 months

17½x22½ Six-fold Automatic Baumfolder

\$150 initial and \$1.40 a day for 30 months

22x28 and 25x38 Automatic Baumfolders

30x46 . . . 60 Automatic Baumfolder

Proportionately painless in outgo,  
but boy OH BOY . . . an income  
for a life time of golden profits.

If kept busy but two or three days a month it will  
pay for itself several times over, before you pay for it.

The next move is yours . . . write, wire or phone  
collect (from anywhere) . . . Lombard 3-8164-5-6.

**RUSSELL ERNEST BAUM, Inc.**

615 CHESTNUT STREET PHILADELPHIA 6, PA.

## DOT ETCH PROCESS Color Plates

PROMPT SERVICE

HALFTONE NEGATIVES & POSITIVES

DEEP ETCH PRESS PLATES

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Offset Platemakers

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MILWAUKEE 2, WIS.

For Best  
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DEPENDABLE SERVICE

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guaranteed  
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Rebuilt  
**Milwaukee  
Bronzers**

C. B. HENSCHEL MFG. CO.  
229 W. MINERAL STREET  
MILWAUKEE 4, WIS.

## Young Lithographers Plan Sales Forum, Feb. 8

**A** SALES forum, with four sales executives from New York lithographic plants as a panel of experts, is planned for the February 8 meeting of the Young Lithographers Assn. of New York. Members of the panel are to be the same men who made up the YLA panel last February, and this year's meeting is to be a continuation of that one. Last year's meeting featured prepared questions, and this time, only questions from the floor will be considered. Panel members are: Walter J. Ash, vice president, Consolidated Lithographing Corp., moderator; William

M. Winship, vice president and general manager, Brett Lithographing Co.; Edward N. Mayer, Jr., president, James Gray, Inc.; and A. J. Fay, vice president and sales manager, National Process Co. The meeting will be held at the New York Advertising Club.

The YLA's January 11 meeting featured a talk by John Biddle, Eastman Kodak Stores, on photographic copy preparation; and the first showing before a graphic arts group of the new Eastman motion picture "Functional Photography in Industry."

### St. Louis to Install Officers

The Associated Printers & Lithographers of St. Louis planned to hold a joint meeting at the Sheraton Hotel with the St. Louis Printing Craftsmen January 16 in celebration of Printing Week. The event was also to be the inaugural meeting of the association, with the installation of the new 1950 officers and directors. New directors to serve during 1950 are: George D. Hart, Hart Printing Co.; Ad. Nies, Nies-Kaiser Printing Co.; Leo Painter, Model Printing Co.; J. S. Skinner, Buxton & Skinner Printing & Staty. Co.; George Von Hoffman, Von Hoffman Press, Inc., and Erv. Werremeyer, A. S. Werremeyer Printing Co.

Additional directors to serve for 1950, 1951 and 1952 are: David G. Barnes, Alex H. Crow, Henry C. Keeler, Jr., F. C. Merker, Clyde K. Murphy, F. C. R. Rauchenstein, G. R. Bardgett, L. B. Brown, Geo. Gannett, Ray Kutterer, Edw. Mernagh, Wm. Steinbrueck.

### St. Louis Stoppage Settled

Amalgamated Lithographers of America members went back to work in some 14 St. Louis lithographing plants December 12 after a work stoppage which began October 31. A wage increase of \$2 a week for those making less than \$50 a week and a \$4 increase for those above \$50 were

agreed upon, as well as a health and welfare plan comparable to others in effect elsewhere. The health and welfare plan is to be administered entirely by employers.

The \$1,000,000 damage suit against employers, filed by the union during the dispute, was withdrawn. Fifteen independent firms signed agreements comparable to the contract agreed to by the members of the Associated Printers & Lithographers of St. Louis.

### Ohio Assn. Honors Merten

William H. Merten, president, Strobridge Lithographing Co. who has served for 22 years as president of the Miami Valley Lithographers Assn. submitted his resignation and then was elected president emeritus at an annual association meeting recently in Cincinnati. Succeeding to the presidency was his son, Harold A. Merten, secretary of the Strobridge Co.

Other officers elected at the meeting are: vice president, John E. Hennegan, president, the Hennegan Co. and treasurer, Oliver W. Perin, vice president, Gibson and Perin Co. New members of the executive committee are Harry E. Brinkman, president Cincinnati Lithographing Co.; Oliver T. Jenkins, vice president Rainbow Lithographing Co., and Thomas Stevenson Jr., secretary and treasurer, Stevenson Photo Color Separation Co.



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**WATER?**

not *Perfection*  
**FLAT  
GUMMED PAPER**

And Here's Why—

Unevenly cut sheets of gummed paper passing through an Offset press result in water being picked up from a short-length edge by the pressure cylinder and transferred to the gummed side of the next sheet. The result? The sheet sticks to the pressure cylinder, or to the following sheet.

### WHY DOESN'T THIS HAPPEN WITH PERFECTION?

Because special manufacturing processes eliminate most of the shrinkage and expansion in PERFECTION Flat Gummed Papers. Plus the fact that each sheet of PERFECTION is cut SQUARE and to EXACT size. There are no uneven sheets to cause trouble.

### OTHER PERFECTION FEATURES

- ★ 65 different stock items
- ★ 10 whites—19 colors
- ★ Dextrine, Strong & Special Gumming



For printing gummed paper by Offset, be sure to specify **PERFECTION**. Your Fine Paper Merchant can supply samples, or write direct to:

**PAPER MANUFACTURERS CO.  
PHILA. 23, PA.**



*Write today*  
on business letter-  
head for samples  
and literature.

## THREE CRAFTINT "CORNER-CUTTERS" FOR THE LITHOGRAPHER

- ★ Craftint Doubletone drawing paper, the magic-like paper with the processed-in screen patterns which permits the artist to do mechanical shading on the art itself... Here is a definite time and money saver.
- ★ Craftint Top-Sheet a transparent film on which is printed opaque shading tones. Top-Sheet can be used over the art for shading, or with a negative for direct "burn-ins".

- ★ Craftint Multicolor Drawing Board and Film processed with properly angled screen patterns is adaptable to both albumen and deep-etch plates. This is a genuine "corner cutter" in four color work.

*You'll find Craftint negative opaques, pure rubber cement, and retouch colors dependable "corner cutters", too.*

**THE CRAFTINT MANUFACTURING CO.**  
1613 COLLAMER AVENUE • • • CLEVELAND 10, OHIO

HARRIS LSC 35x45 OFFSET PRESS  
HARRIS S8L 28x42 OFFSET PRESS  
HIGH PILE DELIVERY  
HARRIS 22x34 OFFSET PRESS  
WEBENDORFER 22x29 OFFSET PRESS  
MILLER SIMPLEX 20x26  
CLEVELAND AUTO. FOLDER 26x40  
MIEHLE HAND FED PRESS 46"  
AUTO. CLAMP PAPER CUTTER 48"  
NO. 2 KELLY 22x34 PRESS  
CHRISTENSEN GANG STITCHER  
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CONTINUOUS TRIMMERS

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Have been standard for twenty-two years. Owing to modernizing of Press design Baldwin Washers have kept pace with new methods by using improved materials in plastic which wash up quicker and cleaner, also protect high finish on metal press rollers by preventing scratching or disturbing surfaces and at the same time assuring long life and blade economy.

Baldwin washers are fully patented and will be protected against infringement.

Made by:

**WILLIAM GEGENHEIMER**

*Offset Press Engineering*

78-80 ROEBLING STREET

BROOKLYN, N. Y.

EVERgreen 8-5161

ESTABLISHED 1918

**Comolith**

*in black and in color*

**for your finest  
litho work**



**c. o. MONK, INC.**

212 NORTH BENTALOU ST.  
BALTIMORE 23, MD.

1408 NEWTON STREET  
LOS ANGELES 21, CAL.

**A COMPLETE  
STOCK OF  
GRAPHIC  
FILM  
AND  
PLATES**

PLUS . . .  
**EVERY PHOTO ESSENTIAL  
FOR THE  
LITHOGRAPHER**

For 29 years NORMAN WILLETS has been the first source of supply for Lithographers for everything photographic from film, plates and chemicals to the installation of complete plants.

WRITE FOR OUR CATALOG

**NORMAN-WILLETS GRAPHIC  
SUPPLY CO.**

329 WEST WASHINGTON STREET - CHICAGO 6, ILLINOIS  
TELEPHONE RANDOLPH 6-2200

## CLASSIFIED ADVERTISING

All classified advertisements are charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment, where the rate is five cents per word, \$1.00 minimum. One column ad in a ruled box, \$7.50 per column inch. Address replies to Classified Advertisements with Box Number, care of Modern Lithography, 254 W. 31st St., New York 1.

Closing date: 25th of preceding month.

### Help Wanted:

**POSTER ARTISTS, DOT ETCH** artists, steady employment. McCandlish Lithograph Corp., Roberts Ave. & Stokely St., Philadelphia 29, Pa.

**COMPETENT LITHOGRAPHIC SALESMAN:** Long established mid-west lithographer with modern two-color equipment is seeking high class Chicago sales representative. The man we want must have a good following and excellent reputation. Remuneration commensurate with ability. Address Box 411 c/o Modern Lithography.

**LITHOGRAPH ARTIST & DOT ETCHER:** Capable of taking complete charge of art department handling high class advertising. Apply to Jorgenson & Co., 500 Sansome St., San Francisco, California. Replies will be treated strictly confidential.

**SALESMAN WANTED:** We are looking for a man who has had experience selling the lithographic trade. Must be capable of demonstrating film. Give full particulars. Address Box 412 c/o Modern Lithography.

**EXPERIENCED FOREMAN** for established plant \$200,000 sales. Supervise production camera to press. Future investing opportunity. College Offset Press, 150 N. Sixth St., Phila., 6, Pa.

**PHOTOGRAPHER:** First class, thoroughly experienced in most modern color reproduction techniques. Splendid opportunity for ambitious man. Give qualifications, experience and salary desired in first letter. Great Lakes Press, 439 Central Ave., Rochester, New York.

**DOT ETCHER WANTED:** San Francisco area. Steady employment.

### PAUL W. DORST

*Lithographic Consultant*

Process Studies      Process Coordination  
Trouble Analyses      Personnel Training  
Quality Improvement      Special Problems

3373 Morrison Ave., Cincinnati 20, O.

Must be capable of high quality work. Send samples of work and full information. Replies held in strictest confidence. Our people know of this ad. Address Box 418 c/o Modern Lithography.

### Situations Wanted:

**PLATEMAKER:** Experienced in all phases of platemaking, deep etch, photo composing, etc. Will locate anywhere. Address Box 413 c/o Modern Lithography.

**LITHO PLANT SUPERINTENDENT:** Desires future connection with modern progressive concern. 28 years experience all types of work. Willing to locate anywhere. Address Box 414 c/o Modern Lithography.

**PRESSROOM FOREMAN:** A top quality offset pressroom foreman interested in a position with a progressive color shop. Address Box 419 c/o Modern Lithography.

### For Sale:

**FOR SALE:** Wagner proving press, motor driven—will take 38½ x 50 plate—good condition. The Bell-Hortensine Co., 229 E. 6th St., Cincinnati, 2, Ohio.

**PRINT-OFF**—Amazing new solution, removes old images from Offset, Multilith and Davidson plates. Saves regaining, plates, money. Use same plate over and over again without regaining. \$6.75 per gallon. Graphic Arts Laboratories, Box 365-B, Hamilton, Ohio.

*(Turn the Page, Please)*

### Wanted to Buy

29"—100 line Circular Screen

### For Sale

44"—65 line Circular Screen

23½"—150 line Circular Screen

### NATIONAL STEEL & COPPER PLATE COMPANY

653 Tenth Ave.  
New York 19, N. Y.  
Circle 5-8822

# Step and Repeat!

*Not a machine for  
sale but a service  
to supplement your  
plate department.*

We specialize in negatives, positives or complete plates for single or multi-color work such as labels, razor blade wrappers, precision instruments on metal or plastic, metal toys, etc.

### John C. Crozier

1290 CENTRAL AVE.

Hillside, N. J.

Telephone: WAverly 3-9467



## IT'S THE **FINISH** THAT COUNTS

- DIE CUTTING
- EMBOSING
- FOLDING
- BOXING
- GOLD STAMPING
- COLLATING
- INTERLEAVING
- FINISHING
- GUILLotine CUTTING

*Catering to the*  
GREETING CARD, STATIONERY  
*and*  
GRAPHIC ART INDUSTRIES

THE LARGEST MECHANICAL PLANT IN THE EAST  
OPERATING DAY AND NIGHT • SHEET SIZES TO 52 x 74

For service • NEW YORK OFFICE, FOUNDATION 8-1400  
BOSTON OFFICE, LIBERTY 2-2268



**CUT COSTS  
IMPROVE QUALITY**

with **YOUNG BROTHERS  
METAL DECORATING OVENS**

• You save on production time, you prevent loss of material and improve the quality of your finish when you use Young Bros. Metal Decorating Ovens. Their new and exclusive advantages have proven highly profitable to leading metal lithographers. Get the latest information on how you can get more production at less cost through faster drying—write for Bulletin 7-L today!

**YOUNG BROTHERS CO.**  
2011 PARK AVE. DETROIT 26, MICH.  
Established 1896

U. S. Pat. Nos.  
2,406,821  
2,406,822  
other patents  
allowed and  
pending

## LITHOGRAPHIC PLANT FOR SALE



Up-to-date lithographic plant, large two-color and single-color presses, operating with skilled craftsmen on high-grade black and white also color process work in Manhattan.

Sales 1949 one million dollars. Profitable business. Please give evidence financial standing in replying to this ad.



Box No. 420

**Modern Lithography**  
254 W. 31st St., New York 1, N. Y.

## OFFSET PLATES TO THE TRADE **BAKER REPRODUCTION COMPANY**

208 South Jefferson Street  
CHICAGO 6, ILLINOIS

ALBUMEN . . . . . DEEP-ETCH  
COMPOSING MACHINE

All Sizes—  
HARRIS-WEBENDORFER-MULTILITH  
Quality . . . Satisfaction Guaranteed  
Complete Copy Preparation

## **DRY PLATES FILM PHOTO CHEMICALS**

Lenses, Contact Screens  
and accessories for the camera  
and darkroom

**K. SCHLANGER**

333 West Van Buren St., Chicago 7, Ill.  
WEBster 7540

**FLEXICHROME Print Service:** Try new color process. Send us your negative. We send you print ready to be colored with Flexichrome dyes. Write for price list. Lorence Studio, Dept. ML, 1797 Clinton St., Buffalo, 6, N. Y.

**FOR SALE:** Jos. Gelb. Printing Light with double arch holders for wide range type C-116 SE AMP 85 #024. Excellent condition. Like new. Address Box 415 c/o Modern Lithography.

**FOR SALE:** Levy camera 31x31 complete with plate holder, screen holder, copyboard, bellows, lens boards, etc. In good condition. Address Box 416 c/o Modern Lithography.

**FOR SALE:** Blowup Camera—converted to overhead track. Complete. Will take 38x50 film. Exceptionally good buy. Must sell. Address Box 417 c/o Modern Lithography.

**FOR SALE:** Miehle 54" single color offset press. 12 years old. Being operated in Baltimore. Available about February 1, 1950. H. S. Crocker Co. Inc., 1000 San Mateo Ave., San Bruno, California.

**FOR SALE.** New vacuum frame and whirler for 17x22 press plate \$458. Singer Engineering Co., Complete Plate Making Equipment. 248 Mulberry St., New York, 12, N. Y., WA 5-7625.

**FREE SAMPLES:** Ready-to-use artwork. Thousands of smart line drawings by top artists, less than 5c each. Thrifty for paste-ups. Write for free samples and current releases on approval. Volk Advertising, Drawer 207, Atlantic City, N.J.

**FOR SALE:** One model 1250 Multi-graph with motors AC 220-60 with attachments. Deltco Rug Co., Oshkosh, Wisconsin.

**PROCESS LENSES—**World's largest selection—All makes coated to increase resolving power—Available on 15 day trial. Satisfaction guaranteed. 9-3/4" F-9 Carl Zeiss Apo Tessar \$199.50. 10-3/4" F9.5 Goerz Apo Artar \$179.50. These are only samples of our tremendous process lens selection—We have process lenses up to 48" focal length—World's largest stock of lenses—Send this ad for free lens list and catalog. Burke & James, Inc., 321 South Wabash Ave., Chicago, Ill., U.S.A., Att: Mr. A. Loners.

**Turn to Turner in 1950 ...  
SAVE on Quality Equipment**

44x64" HARRIS Model LF  
36x48" HARRIS Model S7L  
28x34" HARRIS Model S6L  
17x22" HARRIS Model LSB  
17 1/2 x 22 1/2" WEBENDORFER Model MAC  
17x22" WEBENDORFER Model MA  
14x20" WEBENDORFER Model M  
38x52" POTTER, Dexter pile feeder

**TURNER PRINTING MACHINERY, INC.**  
2630 Payne Avenue, Cleveland 14, Ohio  
732 Sherman Street, Chicago 5, Illinois  
580 West Congress Street, Detroit 26, Mich.

**FOR SALE  
MIEHLE OFFSET**

**SINGLE COLOR - 41 x 54**

**DEXTER FEEDER - AC MOTOR**

**Available 30 Days**

**BEN SHULMAN  
ASSOCIATES, INC.**  
500 FIFTH AVE., NEW YORK, N.Y.

**S. F. Co. Plans Eastern Plant**

A San Francisco firm which does 93% of its business east of the Mississippi and which maintains 23 branch offices throughout the country is going to increase production 20-fold, build an eastern plant costing between 100 and 150 thousand dollars, and eliminate nearly 80% of its typographical costs.

These are the plans for 1950, according to Albert A. Rembold, president and one of the principal owners of E-Z Sort Systems, Ltd., a 15 year-old organization.

Specializing in the making of tabulating cards and installation of production control systems, E-Z Sort Systems includes automobile, electrical and other large manufacturers as its customers. Besides its printing activities, the company also makes tabulators, punchers, and groovers in its own foundry and maintains a plastic manufacturing division.

Principal reason for adding an eastern plant is to cut freight costs on special paper mostly from eastern paper mills. Another reason is that present San Francisco plant, although now operating 22 hours a day, will not be able to keep up with future orders, Mr. Rembold said.

Tripling of production in its present plant and elimination of almost 80% of its typographical costs will be achieved, according to Mr. Rembold, by switching letterpress printing operations to offset.

**OUR BASIC POLICY--For Almost A Century Now-  
SERVICE THROUGH THE MERCHANT**

**D'Artagnan, Guardsman, Porthos, Cloth Lined Covers**

**Box Covering, Greeting Card Papers**

**THE UNITED MANUFACTURING CO.**

**SPRINGFIELD 7, MASS.**

MAKERS OF  
**THE FINEST QUALITY COLOR PLATES**  
 FOR  
**OFFSET LITHOGRAPHY**

THE STEVENSON PHOTO COLOR SEPARATION CO.

400 PIKE STREET

CINCINNATI 2, OHIO

*Up a Tree!*

Well, come on down and join the hundreds of America's leading lithographers and printers who turn to Graphic Arts for the answers to their plate problems. Here you will find under one roof a complete service, centrally located to afford overnight delivery to most printing centers, offering commercial art, photography, offset, letterpress and rotogravure platemaking.

MAIN OFFICE & PLANT: 110 OTTAWA ST., TOLEDO 4, OHIO

**GRAPHIC ARTS CORPORATION OF OHIO**  
 TOLEDO · DETROIT · NEW YORK · CHICAGO

NEW YORK OFFICE  
 148 W. 25th St.  
 Phone (212) 64-2200

CHICAGO OFFICE  
 232 W. Wabash  
 Phone (312) 644-0000

DETROIT BRANCH  
 823 W. Elizabeth  
 Phone (313) 644-0000



**...FOR YOU!**

**Grade: 100%**

For a 100% solution to your ink problems . . . get in touch with us today!



**TRIANGLE Ink and Color Co., Inc.**  
 305 East 45th Street, New York 17, N. Y.  
 over 25 years service to fine Lithographers and Printers

**CLIP AND MAIL TO**

**MODERN LITHOGRAPHY, 254 W. 31st St., N. Y. 1, N. Y.**  
 Please enter subscription(s) as follows:  
 (Check or money order enclosed)

- ☐ One year, \$3.00 (Canada and Foreign, \$4.00)  
☐ Two years \$5.00 ( " " " " \$7.00)  
☐ Group. (Four or more entered together as a group, \$1.50 each. May be sent to different addresses.)

NAME \_\_\_\_\_  
 (Please Print)

FIRM \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_

(For a group—attach separate sheet with names of persons and addresses.)

**You need the best!**

The best plates produce the best printing. Expert offset plate graining saves you money in the long run by permitting quality work and smooth press performance. The skill and experience of **ALJEN SERVICE** assures the best. Careful and competent handling of your plate problems. Zinc or aluminum plates, any size.

**ALJEN ASSOCIATES**

1215 Primrose Street

Cincinnati 23, Ohio

## Trade Events

Natl. Assn. of Litho Clubs, annual convention, Copley Plaza Hotel, Boston, April 14, 15.

Technical Assn. of the Lithographic Industry, annual meeting, Rochester, N. Y., April 24, 25.

Graphic Arts Exposition, Chicago Int'l. Amphitheatre, Sept. 11-23, 1950.

Lithographers National Assn., annual convention, Edgewater Beach Hotel, Chicago, Sept. 7-9.

International Assn. of Printing House Craftsmen, annual convention, Stevens Hotel, Chicago, Sept. 10-13.

Mail Advertising Service Assn., 1950 annual convention, Hotel Roosevelt, New York, Sept. 30-Oct. 3, 1950.

Nat. Assn. of Photo-Lithographers, Annual convention and exhibits, Shoreham Hotel, Washington, D. C., October 25-28, 1950.

## Litho Schools

CHICAGO—Chicago Lithographic Institute, Glessner House, 1800 S. Prairie Ave., Chicago 16, Ill.

NEW YORK—New York Trade School, Lithographic Department, 312 East 67 St., New York, N. Y.

ST. LOUIS—David Ranken Jr., School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.

MINNEAPOLIS—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

ROCHESTER—Rochester Institute of Technology, Dept. of Publishing & Printing, 65 Plymouth Ave., South, Rochester 8, N. Y.

PHILADELPHIA—Printing Institute, 2206 Chestnut St., Philadelphia 3, Pa.

PITTSBURGH—Carnegie Institute of Technology, Dept. of Printing Administration, Pittsburgh.

## Trade Directory

Lithographic Tech. Foundation  
Wade E. Griswold, Exec. Dir.  
191 East 39 St., New York 16, N. Y.

National Association of Photo-Lithographers  
Walter E. Soderstrom, Exec. Sec'y.  
317 West 45 St., New York 19, N. Y.

Lithographers National Association  
W. Floyd Maxwell, Exec. Dir.  
420 Lexington Ave., New York 17, N. Y.

National Association of Litho Clubs  
James Spevack, Pres.  
Printing Dept., Western Electric Co., Chicago

Printing Industry of America  
James R. Brackett, Gen. Mgr.  
719 15th St., N. W., Washington 5, D. C.

International Assn. of Printing House Craftsmen  
P. E. Olfert, Exec. Sec'y.  
18 E. Fourth St., Cincinnati 2

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"Dat reminds me, Cuthbert! We ain't bin adoin no advertisin' lately!"

## Gentle Reminder . . .

**D**ON'T have your star salesman thrown out on his ear! Let the purchasing agents know what you sell and who you are *before* this terrible thing can happen to you. Bring a smile of recognition to the frowning pan of the toughest P. A. Keep giving him a gentle reminder of your products,—of you and your men, by regular advertising. Then, he can't forget you!

And if it happens to be in the field of Lithography where your salesmen crave recognition, we suggest a gentle reminder in the form of advertising in

## MODERN LITHOGRAPHY

254 WEST 31st STREET

NEW YORK 1

Member, Audit Bureau of Circulations

## Tale Ends

**G**EORGE THOMPSON and Charlie Spiro of Litho Chemical & Supply, New York, were sitting in the lobby of a Havana, Cuba, hotel early in December, when in walked Ted Makarius of Fuchs & Lang, New York. Neither party knew the other was abroad.

★

Frank Poll, active in the Conn. Valley Litho Club and former officer of the NALC, became the father of twins December 26. A boy and a girl, Robert and Patricia, make five children for the Polls.

★

The Dec. 26 issue of *Life*, with all those color photographic reproductions showed the culmination of an unusual photographic assignment and reproduction job. The photographer, Frank Lerner, is a brother of Harry Lerner of Tri-Corn Press, New York photogelatine house. Frank addressed the Jan. 3 meeting of the N. Y. Tech. Section, Photographic Society of America, we are told.

★

Did you know that a litho plant at Brownsville, Texas, practically straddles the Mexican-U. S. border? Says W. A. King, Jr. of the Progressive Lithograph Co.: "Consult a map of the U. S. and you will find that we are the 'last' lithographic concern in the country. You can stand at the rear door of our plant and if you sigh, half of you will be in another country,—Mexico."

★

Jewels of inconsistency. . . . This bird makes his living selling supplies to lithographers, but come Xmas and he sent us a neat line-cut card done by letterpress. And another friend who owns a photo-engraving establishment sent us a Xmas card handsomely lithographed.

★

We do appreciate the scores of greetings from our friends and wish we could acknowledge each one.



# PLAN FOR QUALITY



ANTON BRUEHL . . . FROM THE PAINTING BY LEJAREN A. HILLER, FOR THE MARTIN CANTINE COLLECTION OF ARTISTS WHO PLAN FOR QUALITY IN PRINTING

TO ACHIEVE Quality in Printing, one must plan for it in the layout stages . . . and carry through. If photography is used, a really smooth paper surface is essential to catch the highlights, tone gradations, and delicate detail. I prefer to see my photographs reproduced on genuine coated paper—whether by letterpress or by offset. I think that The Martin Cantine Company, by devoting its experience and facilities to the one all-important process of coating paper, is rendering a distinguished service to the graphic arts.

. . . Anton Bruehl

*Cantine's Coated Papers*

LETTERPRESS: HI-ARTS, ASHOKAN, ZENIA, CAT-  
NEILL, CANFOLD, M-C FOLDING, VELVETONE, SOFTONE,  
POPUS TINTS, PROBUS POSTCARD

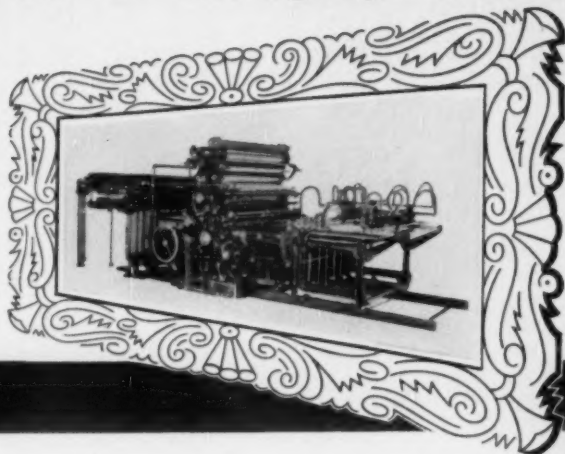
OFFSET-LITHO: HI-ARTS C15, ZENAGLOSS OFFSET  
C25, LITHOGLOSS C15 VARNISH, CATNEILL LITHO C15

SOLD BY LEADING MERCHANTS. THE MARTIN CANTINE COMPANY, BAUGHERTOWN, N. Y. SPECIALISTS IN COATED PAPERS SINCE 1888.

## WORK HORSES of the Lithographic Industry

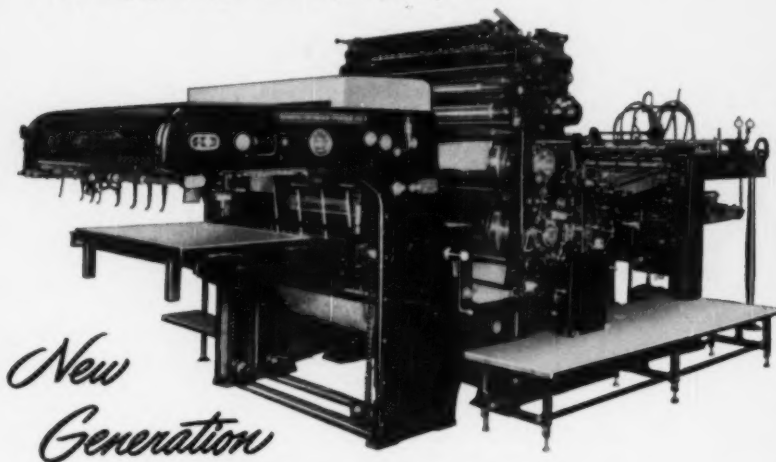
### Veteran

*For 20 years, the veteran Harris S7L set the pace for an industry. In its prime, guaranteed speed was twice as fast as the letterpress equipment it replaced . . . register was unequalled. "Finest offset press for its size ever built," say many proud owners.*



But, good as it was, the S7L is no match for the new generation of Harris lithographic presses. Advanced design . . . fewer interruptions . . . higher speeds . . . are reasons why the new Harris model 145, for instance, puts more salable sheets in the delivery pile every day.

A new Harris press has the productive get-up-and-go to open up new money-making opportunities. Why not calculate the savings 50% higher running speed might mean in your profit picture?



*New  
Generation*

*Harris Model 145, Single color 35 x 45" Offset Press  
Maximum sheet size 36 x 48"—the most economical size for a 16-page form,  
either 8½ x 11" or 9 x 12"*

## HARRIS-SEYBOLD

GENERAL OFFICES, CLEVELAND 3, OHIO